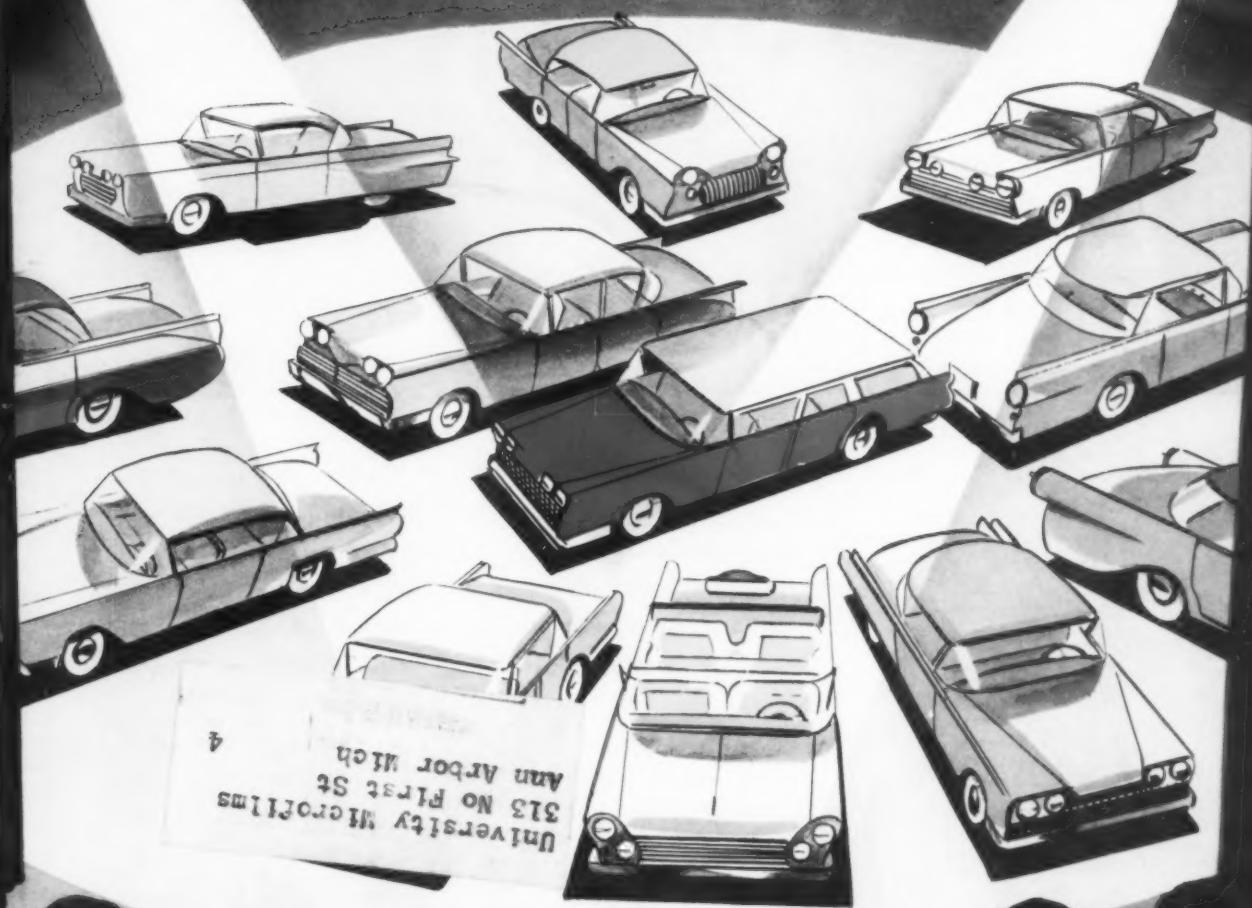


# SOUTHERN AUTOMOTIVE JOURNAL

October  
1960

SERVING THE 19 SOUTHERN AND SOUTHWESTERN STATES SINCE 1921

*Presenting  
the '61 Models*





PERFECT CIRCLE  
PISTON RINGS ARE BUILT  
TO TAKE IT

# 25 TIMES MORE CHROME

The solid chrome on Perfect Circle 2-in-1 rings is 25 times thicker than the chrome plating on an automobile bumper.

This thicker chrome means thousands of extra miles of full power and oil control. And, PC rings go through a special lapping process that virtually eliminates tedious break-in.

Whatever the service, Perfect Circle rings are built to take it. Always specify Perfect Circles—preferred for original equipment and replacement everywhere.



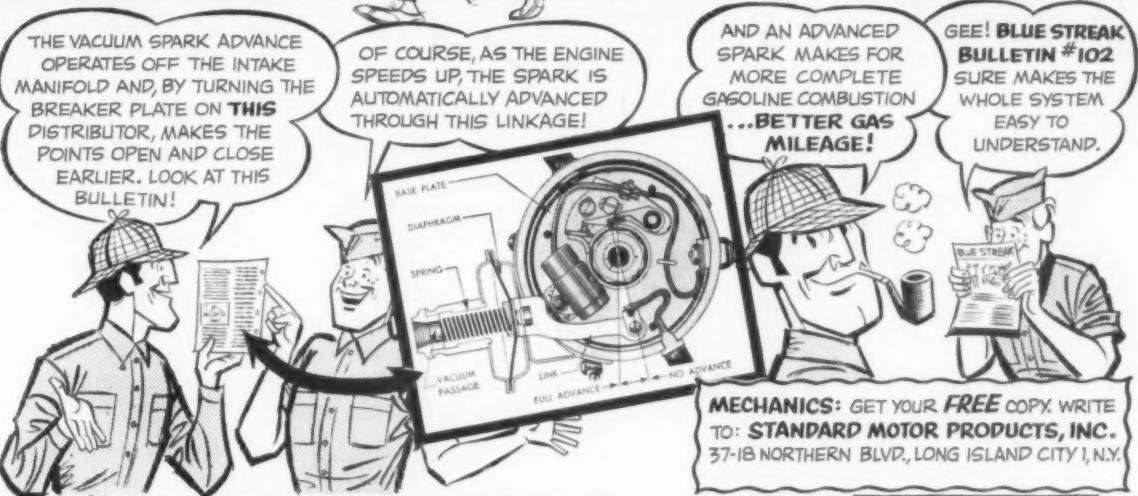
**PERFECT**  **CIRCLE**

PISTON RINGS • PRECISION CASTINGS • POWER SERVICE PRODUCTS • SPEEDOSTAT  
HAGERSTOWN, INDIANA • DON MILLS, ONTARIO, CANADA

ANOTHER BLUE STREAK  
SECRET SERVICE TIP FOR YOU.

# SHERLOCK MCKANICK and MIKE

"The Case of the  
MISSING LEAK"



REGULATORS • SWITCHES • COILS • CONDENSERS • CONTACT POINTS • WIRE AND CABLE

Better products, *faster*, from your National Seal jobber:



## It's good sense...good service...to install new National Seals whenever you pull a wheel!



Assure perfect safety . . . complete customer satisfaction  
... and build extra profits for you while doing it

Make it your general practice to change old oil seals to new National Seals whenever you pull a wheel for a brake job or for bearing repacks. Customers rely on you to keep their cars operating satisfactorily and safely. New National Oil Seals are the finest protection you can offer. They are quality products, built to last. They prevent grease from leaking and ruining brake linings. Bearings can't run dry when lubricants are held in place.

Ask your National jobber about National Seal service stocks which make selling and servicing faster and more profitable for you.

# NATIONAL OIL SEALS

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN



# SOUTHERN AUTOMOTIVE JOURNAL

Covering Automotive Sales and Service

VOLUME 40 NO. 10

## TECHNICAL

Servicing Propeller Shaft and Universal Joint . . . . .	52
Where Good Tune-Ups Begin—and End . . . . .	56
Body Shop: Door Handles and Cylinder Locks . . . . .	64
Nutbuster Letter . . . . .	74
Time Savers . . . . .	122

<b>DEPARTMENTS</b>	
Spotlight . . . . .	5
Markets . . . . .	7
Next Month's Editorial Menu . . . . .	8
Shop Talk . . . . .	68
New Products . . . . .	103
Southern Jobbers and Factory Men . . . . .	160

WILLIAM C. HERBERT, Editor

E. M. LOWERY, Technical Editor C. W. DOOLEY, Assistant Editor  
 BARON CREAGER, Southwestern Editor  
 (Suite 208, 6131 Luther Lane, Dallas 25, Texas)  
 A. F. ROBERTS, Business Manager  
 R. E. YARBROUGH, JR., Advertising Manager  
 H. REDFERN HOLLINS, Circulation Director  
 J. A. MOODY, Production Manager

Published monthly by

W. R. C. SMITH PUBLISHING COMPANY

Editorial and Business Offices

806 Peachtree Street, N.E., Atlanta 8, Ga.

Publishers also of

ELECTRICAL SOUTH TEXTILE INDUSTRIES SOUTHERN HARDWARE  
 SOUTHERN BUILDING SUPPLIES SOUTHERN POWER & INDUSTRY  
 SOUTHERN FARM EQUIPMENT LIGHTING

WILLIAM J. ROOKE, Chairman of Board; RICHARD P. SMITH, President and Treasurer; E. W. O'BRIEN, A. E. C. SMITH, JOHN C. COOK, A. F. ROBERTS and FRANK P. BELL, Vice Presidents; SEDA J. JONES, Secretary.

Please address all communications—editorial, business and circulation—to: 806 Peachtree Street, N.E., Atlanta 8, Ga.  
 Phone TRinity 4-4462.

Copyright 1960, W. R. C. Smith Publishing Co., Atlanta, Ga.

SOUTHERN AUTOMOTIVE JOURNAL is published monthly at 806 Peachtree St., N.E., Atlanta 8, Ga., by W. R. C. Smith Publishing Co. Executive and Editorial Offices: 806 Peachtree St., N.E., Atlanta 8, Ga. Second-class postage paid at Atlanta, Ga., and at additional mailing offices. Subscription Rates: United States and Possessions, \$1.50 per year; Canada and Foreign Countries, \$10.00 per year.

Postmaster: Send notices by Form 3579 to 806 Peachtree St., N.E., Atlanta 8, Ga.

**Serving the 19 Southern and Southwestern States Since 1921**

## Contents for Oct. 1960

### THE '61'S ARE WITH US!

Preee zenting the '61's . . . . .	33
RAMBLER 6 Engine Goes Aluminum . . . . .	34
The '61 MERCURY . . . . .	35
That Unusual Car: TEMPEST . . . . .	36
PONTIAC Offers New Bodies . . . . .	38
CADILLAC Stresses Comfort . . . . .	39
LINCOLN Continental Shrinks Slightly . . . . .	40
Small BUICK Joins Its Elders . . . . .	41
Smaller AMERICAN Changes Styling . . . . .	42
Lamps Highlight IMPERIAL . . . . .	43
Chrysler's Electric Washer . . . . .	44
FORD Boasts 30,000-Mile Chassis Lube . . . . .	45
VALIANT Adds Two Bodies . . . . .	46
CHRYSLER Debuts Lower-Priced Newport . . . . .	47
DODGE and Its Compact LANCER . . . . .	48
CORVAIR Adds Body Styles . . . . .	49
PLYMOUTH Sheds Its Fins . . . . .	50
"Luxury Compact" Joins STUDEBAKER . . . . .	51
OLDS F-85 Sports Aluminum Engine . . . . .	59
OLDS Improves Hydra-Matic . . . . .	60
CHEVY Shrinks Slightly . . . . .	61
FALCON Preserves '60 Styling . . . . .	62
Hardtop Is Only Style in DE SOTO . . . . .	63



Member of National Business Publications, Inc.

Member of Audit Bureau of Circulations

Business Representatives

Chicago: R. K. McCONNELL, 333 N. Mich. Ave. Tel. CEntral 6-6964. New York: HUGH M. TOOMEY, Room 610, 7 E. 42nd St., Tel. MUrray Hill 2-4959. Detroit and Cleveland: W. G. SHEEHAN, 17021 Amber Drive, Cleveland 11, Ohio, Tel. Winton 1-1306. Los Angeles: WARREN R. CHRISTIAN, P. O. Box 39711, Griffith Station, Los Angeles 39, Tel. HOllywood 2-1133. San Francisco: FRED JAMESON, 821 Edinburgh St., San Mateo, Calif., Tel. Diamond 3-8806. Gastonia, N.C.: W. C. RUTLAND, P. O. Box 102, Tel. UNiversity 7-7995. Cohasset, Mass.: J. D. PARSONS, 39 Atlantic Avenue, Tel. EVergreen 3-0712. Dallas: BARON CREAGER, Suite 208, 6131 Luther Lane, Tel. EMerson 3-1543.

# cars run better... your profits run better...



## with CASITE ADDITIVES

### The reason is Casite's 3-Zone Engine Protection

Casite's "3-Zone Engine Protection" story makes sense to your customers—makes sales and profits for you.

Casite takes the guesswork out of additive selling—provides three corrective and preventive additives developed specifically for the three vital engine zones—firing zone, friction zone and automatic transmissions.

From one source—your Casite Distributor—you get one line of additives to cure most engine ills. Cuts inventory and shelf space. If you're not already cashing in on the big Casite program, get started now with Casite Tri-Pack—the low-cost, low-inventory, high-profit way to offer 3-Zone Engine Protection.

#### For the firing zone—Improved CASITE TUNE-UP

Frees sticky valves and rings, cleans carburetor and spark plugs, protects against acid damage. Also for quicker starting, less start-up wear, and new or rebuilt engine break-ins. List \$1.25.

#### for the friction zone—CASITE 3-C

H.D. crankcase concentrate stops hydraulic lifter noises, quiets and smooths the engine. Makes a tougher oil that won't thin out—cushions the load on every working part. Cleans the engine and keeps it clean. Inhibits acid, rust, corrosion. List \$1.50.

#### for automatic transmissions—CASITE SMOOTH-SEAL

Reduces jerks and roughness—assures smooth, quiet operation. Stops and prevents leaks due to hardening or shrinking of seals. Reduces shock and wear; enables delicate parts to last longer. List \$1.95.



#### Paul Harvey helps you sell Casite Additives!

Casite sponsors Paul Harvey News daily, Monday through Friday, over more than 258 stations on the ABC Radio Network. Biggest "scoop" in the additive industry, and real sales help for you.

This top-flight news announcer has a tremendous audience—many of your customers listen to him regularly, and buy the products he recommends. Set the dial to your ABC radio station.

HASTINGS MANUFACTURING COMPANY • HASTINGS, MICHIGAN

Casite Additives, Piston Rings, Oil Filters, Spark Plugs



## Automotive SPOTLIGHT

October 1960

Florida's motor vehicle registrations continue to pile higher. Percentagewise, the state will run third only to Arizona and Hawaii, the Bureau of Public Roads, U.S. Department of Commerce, reported Sept. 25. Arizona's gain this year is expected to be 7.4% over its '59 performance. Hawaii's will be 7% and Florida will be close behind at 6.2%. All this is in contrast to the national average of 3.3%. Other Southern states placing high included Alabama, 5%; Georgia, 4.6%; Mississippi, 4.5%, and North Carolina, 4.3%. Texas' total is expected to climb 2.2%—rising from 4,350,573 in '59 to 4,447,000 this year.

Standings of the other Southern states: Arkansas, up 3.5%; Kansas, up 2%; Kentucky, up 2.7%; Louisiana, up 3.5%; Maryland, up 3.7%; Missouri, up 2.6%; New Mexico, up 1.5%; Oklahoma, up 3.2%; South Carolina, up 3.5%; Tennessee, up 3.8%; Virginia, up 3.1%; West Virginia, down 0.6%, and District of Columbia, up 2.8%. Florida's registrations are climbing this year from 2,252,745 to 2,392,000.

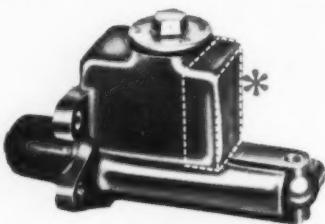
A new plant is being added to the mushrooming industrial South. Bowers Battery and Spark Plug Co., Reading, Pa., has announced it will build a \$1,250,000 plant on a 20-acre site near Greer, S.C., midway between Greenville and Spartanburg. It'll employ about 150 persons when it begins operations early next year.

Newspicking through Dixie: Edward N. Cole, Chevrolet's general manager, will deliver his second speech before a state dealer association—and again it will be to Southern dealers. The former chief engineer (photo on page 138) of Cadillac and, later, of Chevrolet impressed North Carolina dealers at Pinehurst in May. Now he has accepted an invitation to address the annual convention of the Georgia Automobile Dealers Association at the General Oglethorpe Hotel near Savannah next May 16. . . . Richard N. Satterfield, 40, is the successor to the late David P. "Doc" Whelchel as executive vice president of the Tennessee Automotive (Dealers) Association. He has been directing the Mississippi Division of the American Cancer Society. . . . The greatest kickoff of a state wholesaler association in the South's history is taking place Oct. 24 at Richmond. By Sept. 26 a total of 71 jobbers had applied in advance for membership, a tribute to a steering committee headed up by John F. Midyette of Standard Parts Corp., Richmond, Norfolk and Roanoke. . . . Shops are beginning to gear up in Louisiana and Mississippi for the compulsory motor vehicle safety inspections which begin under new laws Jan. 1.

Rear and front lights are still the worst offenders. Results reported from the National Safety-Checks, sponsored by a number of industry groups, revealed the following on 360,090 cars and 389,114 trucks found to be faulty: 31.2 had inadequate rear lights, 17.4% had inadequate front lights, 13.6% had improper brakes and 10% had inadequate exhaust system. Tires ranked next with 8.7% and windshield wipers were found faulty on 5.8. Steering faults were found in 5.4%, glass inadequate in 3.9%, inadequate horn in 2.6% and inadequate rear view mirror, 1.4%.

GM has modified its replacement parts distribution program. Effective Nov. 1 these changes are "designed to meet the challenge of changing market conditions and to keep maintenance costs to owners of General Motors cars and trucks as low as possible," said the otherwise non-detailed announcement.

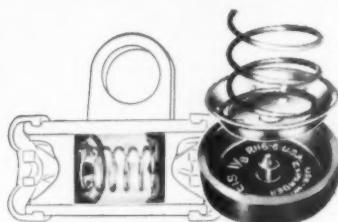
• WHEEL CYLINDERS AND KITS • FILLER-TYPE CUPS • PLAIN CUPS • RIBBED CUPS • POWER BRAKE PARTS AND KITS • PLAIN CUPS • RIBBED CUPS • HONES • BLEEDER TANKS • POWER BRAKE TESTERS •



**NEW! 20% LARGER FLUID RESERVE TANK ON ALL 1959-60 GM PASSENGER CAR MASTER CYLINDERS!** EIS Master Cylinders are precision-made and accurately machined with a mirror-like internal finish. The new, Shell-Moulding Process insures a close grain finish, less porosity and no external imperfections. You get this fine EIS finish **AT NO EXTRA CHARGE!**



The secondary seal problem is solved! EIS incorporates the famous **RIBBED SECONDARY CUP** in all master cylinders—includes them in every EIS Master Cylinder Repair Kit **AT NO EXTRA CHARGE!**



Every EIS Wheel Cylinder comes with built-in "E" SERIES HRC\* CUPS WITH EXPANDERS AND SPRINGS! CUPS are moulded of a \*Heat-Resisting-Compound, specifically formulated to insure trouble-free operation in high-heat conditions created by smaller drums and faster stops. They will also operate efficiently at -40°F. The pistons in EIS Wheel Cylinders are heat-treated for hardness to reduce scuffing. EIS extras **AT NO EXTRA CHARGE!**

If you're looking  
for **SOMETHING EXTRA** in  
brake parts, you'll always find it



Ask your EIS Distributor or write for catalog.  
**EIS AUTOMOTIVE CORP.**  
Middletown, Conn.

Clutch Slave Cylinders giving you trouble? EIS eliminates the trouble spot with these NEW CLUTCH SLAVE CYLINDER REPAIR KITS. They're AVAILABLE FOR CHEVROLET, DODGE, GMC, FORD, INTERNATIONAL, MACK AND WHITE TRUCKS. All kits include the famous and patented\* EIS Ribbed Cup — **AT NO EXTRA CHARGE!**

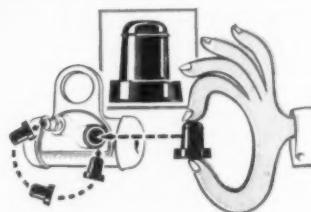
\*Pat. No. 2,465,175



NEW EIS FORD 1960 MASTER CYLINDER COVER WITH HEXAGON DRAWN HEAD THAT MAY BE TIGHTENED WITH A STANDARD DRAIN PLUG WRENCH! The cover is fitted with a no-splash gasket that stops cover seepage — an EIS extra feature **AT NO EXTRA CHARGE!**



EIS Wheel Cylinders come with this Combination BLEEDER SCREW DUST CAP and INTERNAL THREAD PROTECTOR! Remove it from inlet hole before installation — then invert and snap it on bleeder screw to keep out dirt and grease! An ANNEALED COPPER GASKET is supplied where required. Both are EIS extras **AT NO EXTRA CHARGE!**



• RIBBED SECONDARY CUPS • SAE "SUPER" BRAKE FLUIDS • SWITCHES • HOSES •



## Automotive MARKETS

### The Car-Less, Driver-Less Market

HERE ARE too many Americans who aren't in a position to wear out motor vehicles.

Here's what Board Chairman and President L. L. "Tex" Colbert of Chrysler Corp. told editors at the annual press conference at Miami Beach last month:

Consider the fact that of the more than 50,000,000 households in this country, close to 13,000,000, or 25%, own no car at all. Of the 37,000,000 families that do own cars, only 6,500,000 own two cars or more. And in spite of what seems to be a nearly universal ability to drive a car, over 31,000,000 of the 104,000,000 Americans between the ages of 15 and 65 do not hold drivers' licenses.

Wherever you look in the private sector of the economy you can see similar market potentials. By keeping these potentials in mind and by working to broaden and deepen our markets we in private industry can make a tremendous contribution to the welfare of people and to the strength of our country.

In recent weeks we have heard many emphatic words about the need for growth—and we will hear more in the weeks ahead. And at times it is easy to get the impression that our country's rate of growth has slowed down. But listen for a minute to these facts:

In December 1949, just before the start of the second half of the 20th century, the secretary of commerce of the United States said that if the gross national product continued to grow at the same rate in the second half of the century that it had grown in the first half—a rate of 3% compounded annually—by the year 2,000 the GNP would exceed a trillion dollars. *It now appears that his estimate was highly conservative.*

Since 1949, the GNP has increased at the rate of 3.8% a year, compounded annually in terms of 1949 dollars. If we maintain this rate of growth in the years ahead, our national production will break over the trillion-dollar mark not in the year 2,000, but at least 15 years earlier—by 1985 at the latest. And remember, this is in terms not of our present dollar, but in constant 1949 dollars.

Reaching that level by 1985 or sooner depends upon many factors—political, social, economic—and upon developments on the international scene. But it will also depend very heavily upon the decisions that are made in the minds of the customers. And all of us in the automobile business are going to do everything in our power to keep the customer confident about the future and enthusiastic about our products and services.

### Three Chrysler Centers Slated for Miami Area

THREE sales and service centers will be built in the Greater Miami area by Chrysler Corp. for leasing to dealers.

Each facility will be constructed on two acres of land and will cover approximately 20,000 square feet.

Two centers for selling and servicing Dodge cars and trucks, including the Lancer, will be built on 163rd St. between Biscayne Blvd. and West Dixie Highway and on South Dixie Highway at Snapper

Creek. The third center will go up on Broad Causeway between 18th and 19th Aves. and will handle sales and service on Imperial, Chrysler, Plymouth and Valiant cars.

Upon completion in about three months, the centers will be leased to independent businessmen who will operate them as retail dealerships.

Plans for the facilities and their locations reportedly have been discussed with present Miami area dealers by top Chrysler sales officials. Selection of the sites, the officials said, was based on growth



S. R. Browder (shown here) has been promoted from Jacksonville, Fla., zone manager to assistant manager of Chevrolet's Southeast region, succeeding A. J. Sawyer, who retired Oct. 1 after 26 years with the division. C. E. Olsen, former Charlotte, N. C., zone manager, succeeds Browder in Jacksonville. P. C. Loehr, moving from the Richmond, Va., zone management to succeed Olsen in Charlotte, is succeeded by J. H. Kirkpatrick, former Buffalo, N. Y., city manager. Browder joined the company in 1927 and had been at Jacksonville four years. Sawyer had held the Atlanta post since 1956.

studies of the area and commercial and residential expansion trends.

### Clarence Francis Named S-P Board Chairman

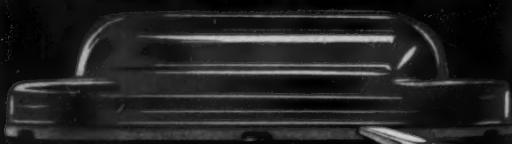
CLARENCE Francis, formerly chairman of General Foods Corp., has been elected board chairman and named chief executive officer of Studebaker-Packard Corp. He has been an S-P director since 1958.

Harold E. Churchill, who has been president since 1956, will continue in that office, acting in a staff capacity in the field. Francis was president of General Foods for nine years and chairman for 11. He is a director of Air Reduction Co., Mutual Life Insurance Co. of New York, Mead Paper Corp., Northern Pacific Railway and other corporations. Since 1954 he has been a special consultant to the president of the United States.

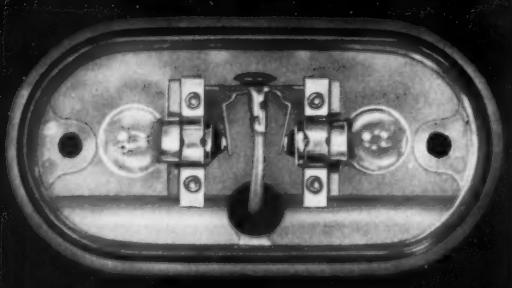
## NEW YANKEE LAMP!



LENS STAYS ON...



TILL YOU SNAP IT OFF!



WITH YANKEE'S NEW flush-mounting No. 79 Clearance Lamp, you change bulbs without removing screws to save replacement time. A simple twist with a screwdriver releases the plastic lens from its exclusive non-rolling retaining ring. The lens snaps back on—will not vibrate off! The new 79's rustproof die-cast housing has a rubber grommet to prevent wire chafe, and its two bulbs operate independently (one stays lighted if the other burns out) for added protection on the road. The YANKEE 79 meets new S.A.E. requirements and is approved in all states where required. See it today at your YANKEE Distributor or write for a free catalog sheet.

All Yankee Products Are Unconditionally Guaranteed

Lamps, Mirrors and Signals



YANKEE METAL PRODUCTS CORPORATION  
NORWALK, CONNECTICUT • TORONTO CANADA

## Next Month's Editorial Menu



### Service Station Cools Customers on Its Ramp

What happens when a service station sets up a system of supplying cool air to customers while they're in for service or to buy gas, oil, etc?

For one thing, the customers spent less time in the rest rooms; they wanted to rush back to their temporarily air-conditioned car!

This doesn't cost as much as you might think, as you'll see.

### TECHNICAL-WISE

While this present October issue strives to fill you in on engineering details of the '61's, some material not covered here will be appearing in November and subsequent months.

Should your shop force specialize? That's debated often. A Tennessee dealer has found this specialization the best answer, and he tells next month how it's worked for him.

### SERVICE-WISE

Heaters are going to begin kicking up—at least on some of your customers' cars. Some tips on cutting service steps in this field will come from Ed Lowery, SAJ's long-time technical editor.

In line with this theme he will also take up, for body shop men, some important means of winterizing car bodies.

Seems that winter is always just around the next corner!



# Automotive NEWS BRIEFS

JANUARY	APRIL	AUGUST	DECEMBER												
S	M	T	W	F	S	M	T	W	F	S	M	T	W	F	S
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	1
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
18	19	20	21	22	23	24	25	26	27	28	29	30	31	1	2
3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
19	20	21	22	23	24	25	26	27	28	29	30	31	1	2	3

**Looking Ahead**

## DEALERS

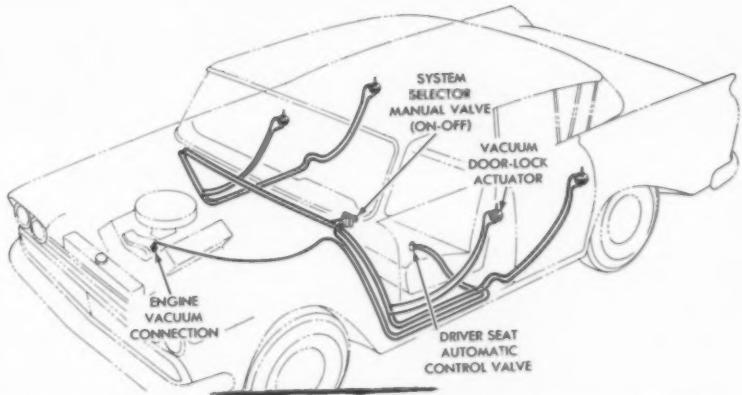
Oct. 22-24—Annual convention of Arkansas Automobile Dealers Association, Marion Hotel, Little Rock.  
 Oct. 23-25—Annual convention of Automotive Trade Association of Virginia, Hotel Roanoke, Roanoke.  
 Oct. 28-Nov. 2—Annual convention of Florida Automobile Dealers Association in Caribbean cruise in the Hanseatic.  
 Nov. 6-7—Annual convention of Oklahoma Automobile Dealers Association, Skirvin Hotel, Oklahoma City.  
 Nov. 13-15—Annual convention of Mississippi Automobile Dealers Association, King Edward Hotel, Jackson.  
 Jan. 15-19—Annual convention of National Independent Automobile Dealers Association, Eden Roc Hotel, Miami Beach.  
 Jan. 28-Feb. 1—Annual convention of National Automobile Dealers Association, San Francisco.  
 March 13-14—Annual convention of Louisiana Automobile Dealers Association, Roosevelt Hotel, New Orleans.  
 March 26-28—Annual convention of Automobile Dealers Association of Alabama, Buena Vista Hotel, Biloxi, Miss.  
 April 30-May 2—Annual convention of Tennessee Automotive Association, Andrew Johnson Hotel, Knoxville.  
 May 7-9—Annual convention of Texas Automotive Dealers Association, Gunter Hotel, San Antonio.  
 May 14-16—Annual convention of Georgia Automobile Dealers Association, General Oglethorpe Hotel, near Savannah.  
 Feb. 3-7, 1962—Annual convention of National Automobile Dealers Association, New York City.

## GARAGEMEN

Jan. 12-14—Mid-year board meeting of Independent Garage Owners of America, Alvin Plaza Hotel, Tulsa, Okla.  
 June 28-July 1—Annual convention of Independent Garage Owners of America, Lowry Hotel, St. Paul, Minn.

## WHOLESAVERS

Oct. 12-13—Semi-annual convention of Virginias-Carolinas Automotive Wholesalers Association, Hotel Robert E. Lee, Winston-Salem, N. C.  
 Oct. 19-22—Annual convention of Au-



For the first time, American Motors offers an all-new vacuum-powered four-door locking system as a factory-installed option on its 1961 Rambler Classic Six and V-8 lines. This safety and convenience feature provides positive locking on all doors, controlled by the driver with an on-off switch situated on the instrument panel and an automatic master switch under the driver's seat.

tomotive Wholesalers of Texas, Rice Hotel, Houston.

Oct. 24—Meeting to organize Virginia Automotive Wholesalers Association, Jefferson Hotel, Richmond.

Oct. 28-29—Annual convention and trade conference of Automotive Wholesalers' Association of Louisiana, Monteleone Hotel, New Orleans.

Nov. 16-17—Annual convention of South Carolina Automotive Wholesalers Association, Wade Hampton Hotel, Columbia.

Nov. 17-19—Annual convention of Florida Automotive Wholesalers Association, George Washington Hotel, Jacksonville.

Dec. 2-9—43rd annual meeting and 24th annual manufacturers-distributors conference of Automotive Electric Association, Edgewater Beach Hotel, Chicago.

Dec. 11-12—Annual convention of Georgia Automotive Wholesalers Association, Biltmore Hotel, Atlanta.

Feb. 12-15—Meetings of Automotive Affiliated Representatives, Biltmore Hotel, Los Angeles.

Feb. 13-14—Annual sessions of Automotive Booster Clubs International, Statler-Hilton Hotel, Los Angeles.

Feb. 14-15—Annual convention of Automotive Service Industry Association, Biltmore Theater, Los Angeles.

Feb. 16-19—13th annual Pacific Automotive Show, Memorial Sports Arena, Los Angeles.

May 14-17—Annual convention of Automotive Engine Rebuilders Association, Fontainebleau Hotel, Miami Beach.

Feb. 28-March 3, 1962—International Automotive Service Industries Show, Chicago.

Feb. 13-16, 1963—International Automotive Service Industries Show, Philadelphia.

## GENERAL

Oct. 10-12—Annual trade show and convention of Automotive Parts Re-builders Association, Conrad Hilton Hotel, Chicago.

Oct. 15-23—National Automobile Show, Cobo Hall, Detroit.

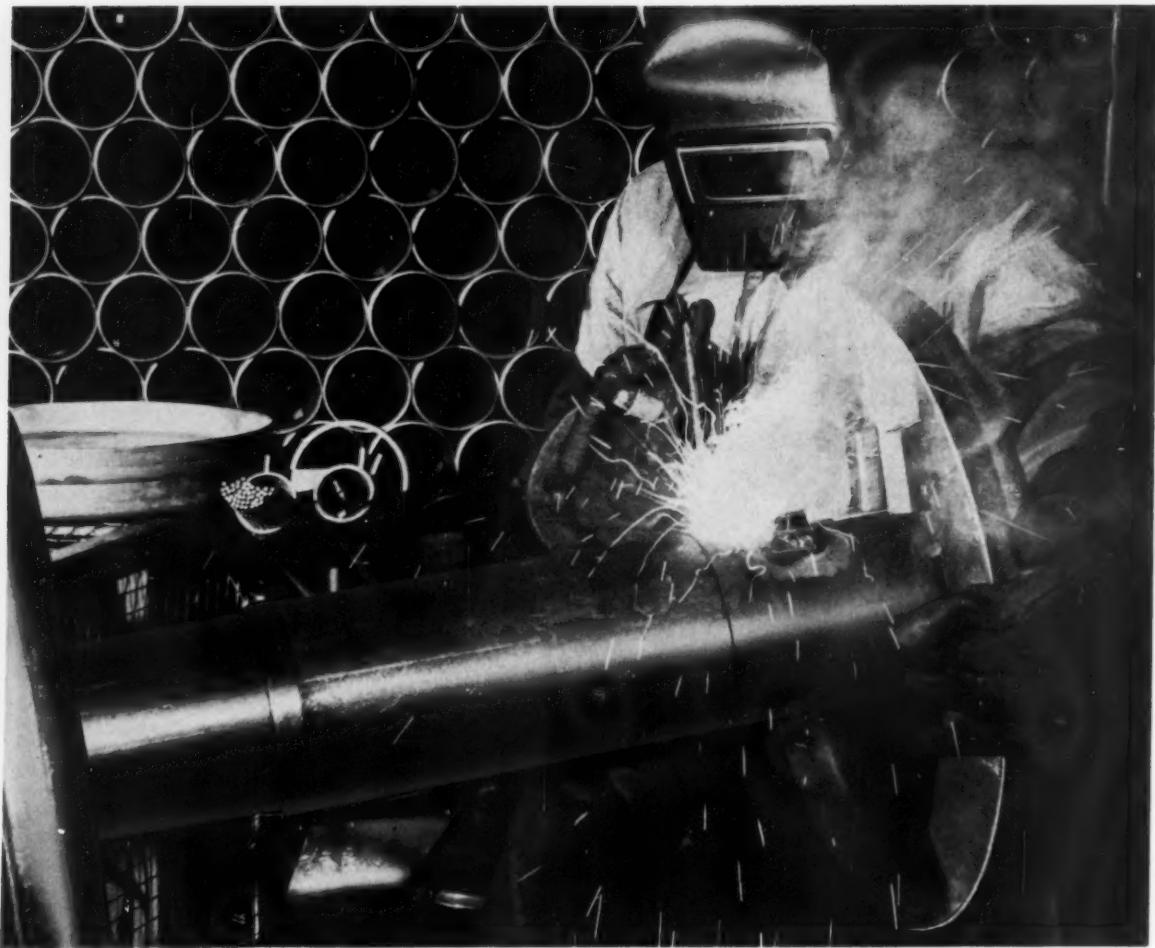
Oct. 24-26—Annual convention and exhibit of Truck Body and Equipment Association, Hotel Sherman, Chicago.

Oct. 31-Nov. 3—Annual convention of Automotive Warehouse Distributors Association, Muehlebach Hotel, Kansas City, Mo.

Nov. 17-18—Seventh annual National Forum of Automotive Air Conditioning, Sheraton Hotel, Dallas, Texas.

## Post Office Ups Jeep Order

An additional 800 Jeep Fleetvan trucks have been ordered from Willys Motors, Inc., by the U. S. Post Office Department, increasing the initial order to 4,010 units, according to C. W. Moss, vice president in charge of sales. Value of the new order is \$1,540,000, raising the total to \$7,700,000. First of the sit-stand, two-wheel-drive units with van-type bodies is scheduled for delivery in November.



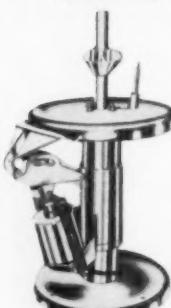
# This May Be Your Next Tire Changer

## The New Air-Powered Coats Challenger-\$159<sup>50</sup>



Row upon row of brand new Challengers await shipment to customers after passing tough final inspection.

Designed by experts and built by the leader, your Challenger offers air power where you want it most. Fingertip control for convenience.



Every part of your new Coats Challenger — every detail in its construction — receives the careful attention of craftsmen, men who look upon a single flaw in a day's production run as a mark against their ability. And yet, your Coats Challenger is priced at only \$159.50, the lowest in the industry for a tire changer with air-powered bead-loosening at convenient, table-top height.

This careful attention extends far beyond the sale. Specialists in the Hennessy organization carry tire service and tire merchandising know-how right to your shop and salesroom. Ask any Hennessy office to show you how you can increase your tire sales.

AIR  
POWERED  
for  
**\$159<sup>50</sup>**

HOME OFFICE: 12 Depot Square, Englewood, New Jersey  
MIDWEST OFFICE: 56 West Maple Street, Chicago 11  
WEST COAST: 3453 Cahuenga Blvd., Los Angeles 28

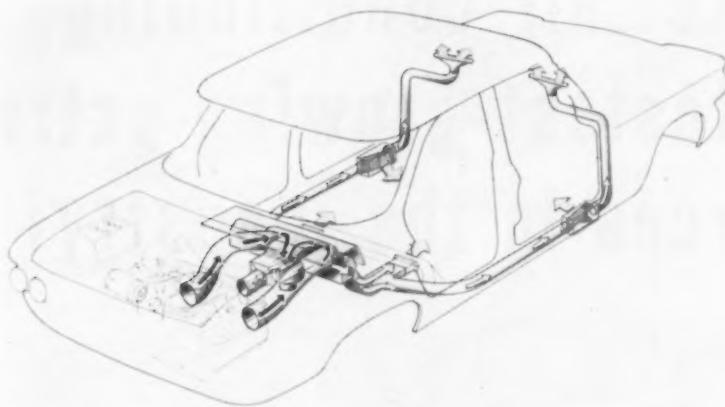
**JACK P. HENNESSY**  
COMPANY INCORPORATED

Manufactured by COATS COMPANY, Fort Dodge, Iowa

**COATS PROVED BEST, COSTS LESS — Made By The World's Largest Manufacturer of Tire-Changing Equipment**

# Automotive NEWS BRIEFS

(Continued from page 9)



This new "perimeter" hot-air heater is available in '61 Corvair passenger cars. Heat comes off the engine, is mixed with air in blower and is blown by ducts to back-seat openings, front-seat exits and window defrosters. Low mileage was reported in some '60 Corvairs due to heavy consumption in extremely cold regions by the gasoline-fired heater in the front trunk compartment. For other features of the '61 Corvair, including some brand-new body styles, turn to page 49.

## Air-Conditioning Forum Will Meet in Dallas

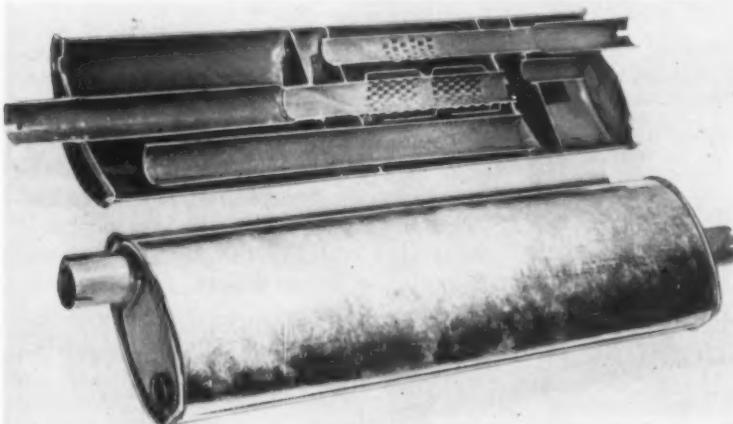
THE seventh annual National Forum of Automotive Air Conditioning will be held in Dallas, Texas, Nov. 17-18.

Sponsored by the Texas Section, Society of Automotive Engineers, in conjunction with the Automotive Air Conditioning Manufacturers

Association (each headquartered in Dallas), the meeting will take place at the Sheraton Hotel. Attendance is expected to reach 500.

Forum panels, moderated by automotive air-conditioning leaders, will cover major fields of interest through three-man discussion groups—all industry authorities—after which open-floor discussion will be held. Subjects which will be

Standard equipment on all 1961 Rambler models is a new ceramic-armored muffler and tailpipe system, guaranteed to the original owner for the life of the car. The ceramic is applied by dipping the specially designed mufflers and tailpipes in a ceramic bath. The coating then is fused to the metal at a temperature of 1,500°. After the coating process is completed, a layer of asbestos insulation and an outer cover are applied to the muffler. The zinc-coated protective cover also is corrosion-resistant.



covered include general automotive design considerations, engine and assembly cooling, passenger compartment noise and vibration considerations, drive components, compressors, developments in thermoelectric design, electrical and control systems and design for compact and foreign cars.

The event will also feature component supplier exhibits.

## Fleet Maintenance Show Is Set for Dec. 5

NEW York's Coliseum will be the scene of the nation's first Fleet Maintenance Exposition to be held Dec. 5. It will be sponsored by the Private Truck Council of America, Inc.

A survey of fleet operators reportedly indicated that more than 50% would send up to three of their key maintenance executives to the exposition, enabling a prediction of more than 10,000 attendees. Another survey showed that 71% of the fleet maintenance executives plan to attend.

The program has been arranged so that fleet operators and top management will have the opportunity to meet engineers and designers of manufacturers and to evaluate the products displayed at exhibit booths, and also to attend a combination of workshop sessions, panel discussions and problem clinics.

All subjects will be coordinated with the exhibits and will cover shop maintenance techniques, operating records and accounting procedures, safety equipment and requirements, controlled maintenance, coolants, lubricants, fuels, new engine development and new vehicles, equipment and components.

The show was developed because of a recognized need for an industrial display and a technical program on the important aspects of fleet maintenance.

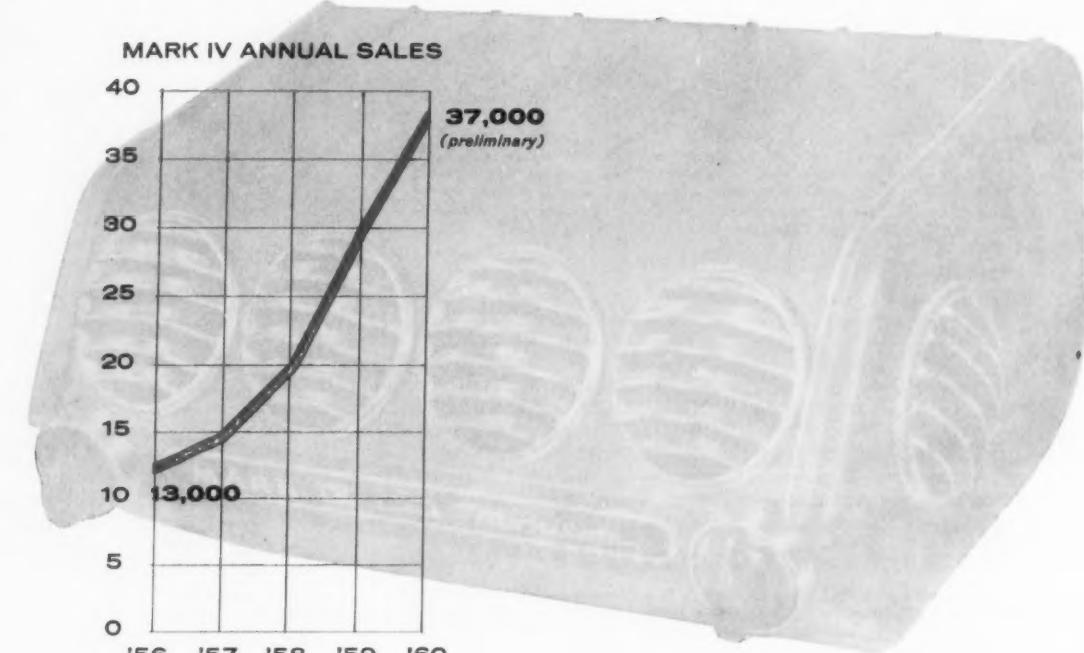
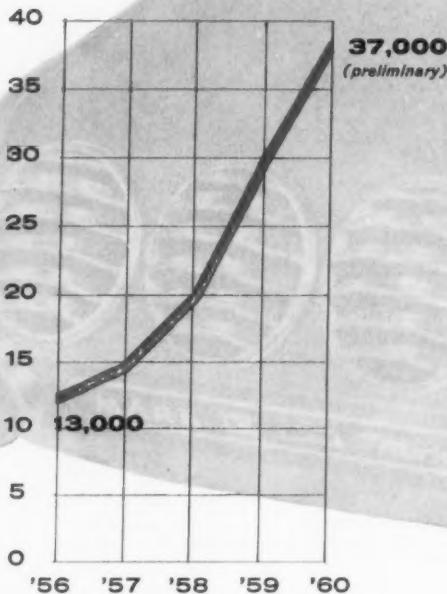
## Atlanta Fleetmen Hear Peacock

Fred E. Peacock of Midland-Ross Corp., Owosso, Mich., addressed last month's meeting of the Fleet Superintendents Association of Atlanta, Ga., on "Air Compressors." Peacock has been with Midland-Ross for the past ten years and was formerly associated with National Pneumatic.

***Are you getting your share?***

# After-market air conditioning: one of the fastest-growing extra profit sources in the industry!

MARK IV ANNUAL SALES



**JOHN E. MITCHELL COMPANY**

3800 Commerce Street Dallas, Texas

The Mark IV program is DEALER ORIENTED from packaging to point-of-purchase sales aids.

The unit is engineered for easy installation and lasting customer satisfaction. Warranty terms are generous but claims are infrequent. Dealers are backed by a nationwide network of over 2,000 factory authorized service centers.

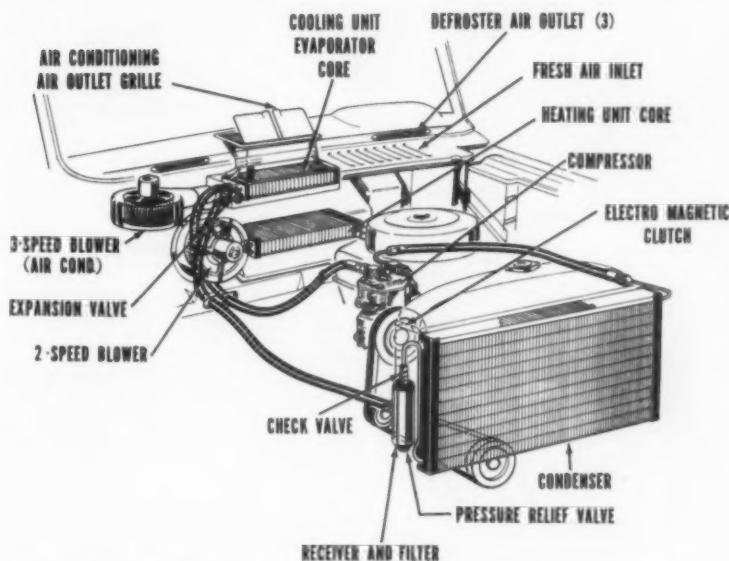
Marks IVs fit almost every model car on the road, but the *biggest percent goes into current year models* — new cars — a perfect opportunity for car dealers.

Drop us a card. Our nearest distributor or factory representative will call with full details.

MANUFACTURERS OF FINE MACHINERY FOR MORE THAN HALF A CENTURY

# Automotive NEWS BRIEFS

(Continued from page 11)



American Motors offers a completely redesigned air-conditioning system for the 1961 Rambler Classic Six and V-8. Shown here is a schematic drawing of the system's major components. The system increases the flow of cold air by 10 to 15% by means of three-speed blower and air passages, both separate from those of the integrated heater system. Adjustable cold air outlets are centrally located on the top of the instrument panel.

## White Heads Color List Among Chrysler Buyers

**W**HITE was far ahead of any second color choice for passenger cars, according to Chrysler Corp. 1960 sales figures, which showed that buyers are giving such color options as Alaskan White, Oyster White, Shell White and other "off white" shades a big popular vote.

More than 32% of all buyers of Valiant passenger cars chose white, while 23.5% of all Plymouth customers preferred that color. White was the choice of nearly 24% of all De Soto buyers and 38% of Dodge buyers living in the Midwest. Buyers of Dodge cars chose white by 21% in the West and 33% in the East. White was preferred by 23% of Chrysler customers and 24% of those ordering Imperials.

Second-choice color preferences ran to such hues as Azure Blue, Fawn Brown, Sky Blue, Starlight Blue, Cloud Grey or Cocoa Brown. Black was a strong second choice among purchasers of Chrysler and Imperial cars and among Dodge buyers living along the eastern seaboard. Black ranked third among new Plymouth and De Soto buyers.

black. Red ranked fourth with De Soto buyers.

Two-tone combinations have shown a decline among buyers of the '60 models and further decreases were predicted for the 1961-model year.

## Bishman Mfg. Co. Bought By Two Minnesotians

**B**ISHMAN Mfg. Co. of Osseo, Minn., owned and operated by Walter L. Bishman and Harold G. Lien for the past 32 years, has been purchased by Wayne H. MacFarlane and Paul J. Schmitt of the Twin City area.

MacFarlane, a former vice president of Minneapolis-Moline, assumed the presidency on Sept. 1. All personnel will be retained, with the exception of Lien, who has retired.

## Autolite Appoints Fors

William C. Fors has been named director of advertising for The Electric Autolite Co., according to Vice President E. R. Stroh. Fors was formerly advertising director for Bissell, Inc., Grand Rapids, Mich., manufacturer of carpet sweepers.

Electro Lane, a device to warn motorists when they're too close to pavement edge or centerline, is undergoing full-scale tests at General Motors Proving Ground near Detroit. Developed by GM Research Laboratories, experimental device (at which man is pointing) is mounted over instrument panel in front of driver who can receive visible, audible—or both—warnings if car veers off electrical "path" of wire in pavement. Ferrite core coils on front bumper pick up electrical signals from wire in center of lane. Lower left photo shows compact transistorized receiver package that goes in car (left) and oscillator unit which sends out low frequency (two-kilocycle) signals from road.

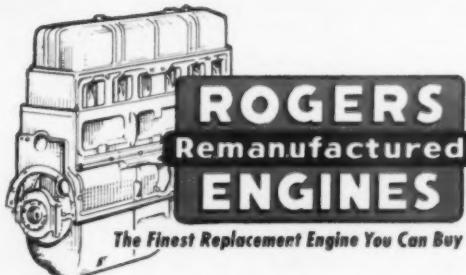


# NOW—Increase sales to truckers!



## Rogers Exchange Engines cut costs for Fleet Operators

Encourage your fleet customers to save money—and increase your own profits. Show them the many advantages of installing Rogers Remanufactured Engines in their trucks. Fleet owners throughout the Southeast have found it profitable to use skilled mechanics on big-truck engines and purchase high-quality, dynamometer tested engines for smaller units. Contact your distributor for details, and ask about the direct-mail advertising program offered by the John Rogers Co.



REMEMBER—YOUR REPUTATION RIDES WITH THE ENGINES YOU INSTALL

# Automotive NEWS BRIEFS

(Continued from page 13)

## American-Made Compacts to Take 35% of '61 Market, Nichols Says

AMERICAN-BUILT compact cars will capture at least 35% of all retail passenger-car sales in the 1961 calendar year, Byron J. Nichols, Chrysler Corp. group vice president—automotive sales, predicted at New York last month.

"Already these new cars have captured a substantial share of the market," Nichols said. "Last month they accounted for 29.3% of all U. S. retail sales. And with the four new compacts, U. S.-built economy cars will probably account for at least 35% in 1961."

Speaking before the eighth annual marketing conference of the National Industrial Conference

close to an all-time high.

2.—Within the automobile industry itself many of the forces that made 1960 an excellent year for sales will continue to work in our favor again in 1961. The suburbs continue to grow. And since the great majority of suburbs make little or no provision for public transportation, more and more people are going to have to rely on automobiles. Family formation is increasing by about half a million a year, and many of these new families are going to need automobiles. Moreover, many established households now find that one car in the family is inadequate. Multi-car households have increased by 67% in the last five years.

3.—The new-car market will again be stimulated by the introduction of four new compacts. And the other 1961-model cars will have new styling and new mechanical features to interest the customer.

4.—Two out of every three sales of new cars are normally made to customers owning cars less than five years old—and at present there are 27,000,000 cars in that age class.



Vice President Nichols

Board, Nichols said Chrysler Corp. is planning for a year in which total U. S. new-car sales will be at least as good as 1960 sales, which are expected to reach 6,500,000 cars, including imports.

"We are also aware," he added, "that the potential is there to make 1961 a much better year than 1960."

Looking forward to 1961, Nichols listed four principal reasons for confidence:

1.—The economy in general is healthy and strong. The gross national product has been rising steadily throughout the past year and is at the highest annual rate in history. Consumer demand has been high and steady. Employment and personal income are at record-high levels, and personal savings are very

## Marylanders Set Nov. 18 For 50-Year Banquet

THE golden anniversary banquet of the Automobile Trade Association of Maryland will be held Nov. 16 at 6 p.m. at the Emerson Hotel in Baltimore.

Dr. Kenneth McFarland, of Topeka, voted "America's Number One Speaker" by the United States Chamber of Commerce, will be the only speaker. A native of Kansas, McFarland has been a school executive through 24 years of public education.

The business portion of the association's annual meeting will be held at 2 p.m., when a report from President Charles Kelly, as well as the election of officers and directors and other business, will be concluded within one hour.

## Stewart-Warner Ups Danciu

Earl A. Danciu has been appointed manager of original equipment sales for the Alemite and Instrument Division of Stewart-Warner Corp., E. N. Robinson, division general manager, announced. Danciu, who joined Stewart-Warner as a sales engineer in 1951, will direct all sales of lubrication systems and of automotive and other instrumentation products to the automobile industry.

Forty years of service by E. J. Hardig (center), Studebaker-Packard Corp. chief engineer, are recognized with a gold pin presented by Harold E. Churchill (right), S-P president. A. J. Porta (left), executive vice president and automotive division general manager, received a 35-year pin. Hardig joined the organization in Detroit as a draftsman, moving to South Bend in 1926. Porta, originally employed as a billing clerk, has been with Studebaker since 1925.



michigan "Hi-Therm"  
engine bearings...the

## QUALITY

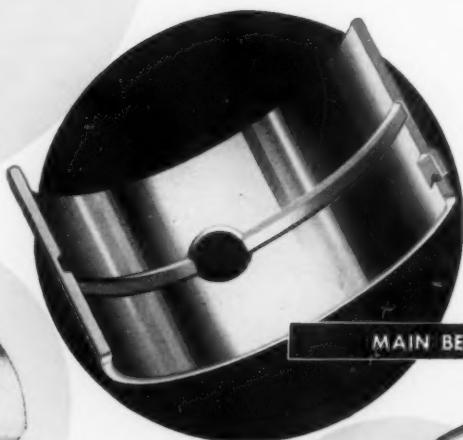
only original  
equipment  
experience  
can produce!

Michigan Hi-Therm bearings for replacement are one and the same with bearings we manufacture for our original customers. For a better job and more customer satisfaction—ask your jobber for Michigan Hi-Therm Engine Bearings.

CAMSHAFT BEARING



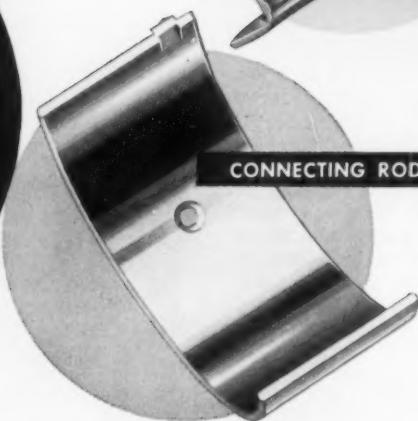
MAIN BEARING



FLANGE BEARING



CONNECTING ROD BEARING



**DETROIT ALUMINUM & BRASS CORPORATION**

DETROIT 11, MICHIGAN

MANUFACTURERS OF ENGINE BEARINGS FOR ORIGINAL EQUIPMENT SINCE 1925

**ARMOR SHIELDED**



**THE ARVIN SHIELD . . .**

The symbol of total protection and unquestioned quality for every muffler in the entire Arvin line.

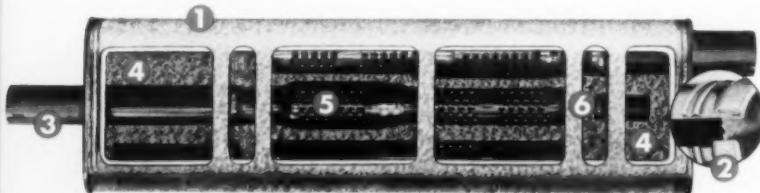
**arm yourself  
for big sales...**

...ARM YOURSELF FOR BIG SALES

# capture more muffler business!

Arm yourself with this powerful selling force from America's fastest-moving line—put into action right now to help you make more profits.

**The Strongest Benefit of All!** The Arvin symbol of *total* muffler protection and quality is also a powerful selling symbol standing for thorough, all-out protection for every part in every Arvin muffler. Rust and corrosion is effectively combated by a thick shielding of zinc or aluminum bonded to every part of the Arvin muffler, including even supports or reversing baffles! You are assured of more muffler business through complete customer satisfaction because of Arvin's philosophy of no compromise with quality anywhere in the Arvin muffler line.



**A Better Muffler by Far! ARMOR SHIELDED**—Both inner and outer shells of *all* Arvin Mufflers (1) Aluminized or Zinc-coated for longer life!

Arvin, the oldest, largest, most experienced muffler manufacturer with a production record exceeding 115,000,000 mufflers was first with the "reverse flow" muffler and first with the "laminated" muffler shell. Arvin is also first to offer a positive seal through the development of (2) a double crimped lock-seamed head, shell and outer wrap, plus (3) full 360 degree seam-welded front and rear nipples.

By providing end chambers (4), Arvin is able to precision tune each muffler and completely eliminate both low and intermediate frequencies. Louvered (instead of slotted) tube perforations (5) efficiently prevent muffler whistling, and have the added advantage of being non-clogging. And, to assure extra muffler strength, Arvin uses cantilever type nipple supports (6).

These features, developed by Arvin's 40-man staff of exhaust system engineers (largest in the industry), give you powerful selling points and Arvin muffler quality stays out in front because of continuous Arvin research and product development!

**Service That Means Instant Availability!** Eight automotive plants, plus the fastest-growing distributor network, assure you immediate handling of all your exhaust system needs. Large, specially trained crews help your Jobber change over swiftly, efficiently, accurately so your Jobber in turn can assure you of immediate service and delivery. You'll like the way Arvin gives you the kind of service you have a right to expect from the leader!



## FREE GIFTS FOR MECHANICS

Free Gift Certificates, entitling Mechanics to famous Arvin consumer products, are included in every bulk muffler shipment. Look for them in the muffler cartons as you install Arvin mufflers!

GET ON THE SELLING SIDE... CONTACT YOUR ARVIN JOBBER FOR THE PROFIT STORY THAT MAKES BUSINESS SENSE AND THE KIND OF SERVICE YOU WANT!



## New! The Industry's Two Most Attractive Curb Signs!

Real traffic stoppers . . . and colorful business-getters! A three-sided sign for excellent visibility from any angle, with a revolving top that spins briskly in the wind. A two-sided swinging sign to attract attention to your invitation to "drive in for a fast muffler installation." Black, yellow, red and white in heavy gauge steel. Your Arvin Jobber offers a share-the-cost plan to bring the price of these signs way down for you.

"**You people have given us more cooperation in a few weeks than we received from our former supplier in years . . .**"



"Your field men work with us or our jobbers during the day, and do inventory changeover work at night. Our jobbers tell us they never had that kind of help before. I know we never had. Our organization is more enthused over this line than any we have ever taken on."

Eddie Lopez, President  
Jobber's Warehouse Service, Inc.  
Arvin Warehouse Distributor in  
Tampa, Florida



sell the big-hearted heating  
of factory installed models  
*... at half the price!*

## Arvin car heaters



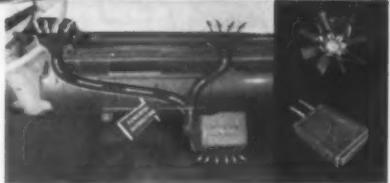
\$39 95

list price. Finished in neutral gray.

### Now...A Really Compact Heater! Fits Most Cars-6 and 12-volts

Only Arvin gives you these exclusive features: oversize copper radiator core with 1600 sq. inches of radiation surface, straight-through air flow, unique core design for steady heat flow, positive 3-direction heat control, infinite fan speed adjustment, convenient defroster outlet on left side permitting flush right mounting, and extremely compact design. Heater is only 7 inches square! Output is 12,000 BTU per hr. Heater air capacity 130 CFM, defroster air capacity 40 CFM. 6", 4-blade aluminum fan. A tremendous sales getter!

Super size 8-blade, 7" fan distributes volumes of warm air... 160 CFM heater air capacity and powerful 45 CFM defroster air capacity. "Heart" of this husky heater is the copper honeycomb core measuring 7 $\frac{1}{4}$ " x 6" x 2 $\frac{1}{4}$ ". Defroster kits available at moderate extra charge.



Arvin car heaters, famous for quality since 1921, give you real sales power at these down-to-earth prices! The husky deluxe heater above provides a big 15,000 BTU output from a 2800 sq. in. copper cored radiation surface. A complete change of water is provided every 2 seconds at normal driving speeds. Finished in attractive neutral Hammered Gray, overall heater size is a compact 9" x 9" x 10" deep. Fits 3 out of every 4 cars, including 1960 and older Fords, Mercurys, Falcons, Comets, Chevrolets, DeSotos, Dodges, Plymouths, Valiants, Studebakers, Hawks and Larks, including older Pontiacs. Also fits 1960 and older Ford, Chevrolet, Dodge and International Trucks as well as older GMC Trucks.

Order Arvin heaters... to capitalize on the rich profit potential offered by cost-conscious fleet owners. For complete information on prices, discounts, and shipping weights contact your Arvin Distributor or write directly to Arvin Industries, Inc., After Market Division Sales Department, Columbus, Indiana.



First In Car Heaters Since 1921 ARVIN INDUSTRIES, INC., COLUMBUS, INDIANA

**SPECIFY DELCO-REMY  
IGNITION PARTS  
TO RESTORE  
NEW-CAR  
PERFORMANCE,  
*SPEED SERVICE,*  
INCREASE  
PROFITS!**



Here's opportunity for you! A national trade magazine\* survey shows that 84% of the cars on the road today need some kind of ignition work. Just take a quick look under the distributor caps of your customers' cars, and when you spot trouble, suggest a complete tune-up—replace worn ignition components with Delco-Remy parts.

Why Delco-Remy? Because they are the *quality* ignition service parts for all popular American cars and light trucks. They're ready to install, and make ignition systems perform like new. And new packages make these Delco-Remy parts easier to stock, identify and sell.

**1** DELCO-REMY DISTRIBUTOR CAPS are designed and built of highly dielectric, shock and heat resistant materials, and feature voltage-saving internal ribs.

**2** DELCO-REMY CONTACT SETS are factory-adjusted and aligned for quick, easy installation. Heat-sealed, moisture-proof packages protect contact sets against dirt and oxidation.

**3** DELCO-REMY ROTORS combine maximum strength with minimum weight and superior balance to assure smooth rotation at slow or turnpike speeds.

**4** DELCO-REMY CONDENSERS assure correct electrical capacity and resist voltage breakdown. Hermetic seal keeps out harmful moisture, oil, and vapors.

Delco-Remy electrical parts are available at car or truck dealers, or through the United Motors System.

\*MOTOR—June, 1959

## Delco-Remy electrical systems\*

FROM THE HIGHWAY TO THE STARS

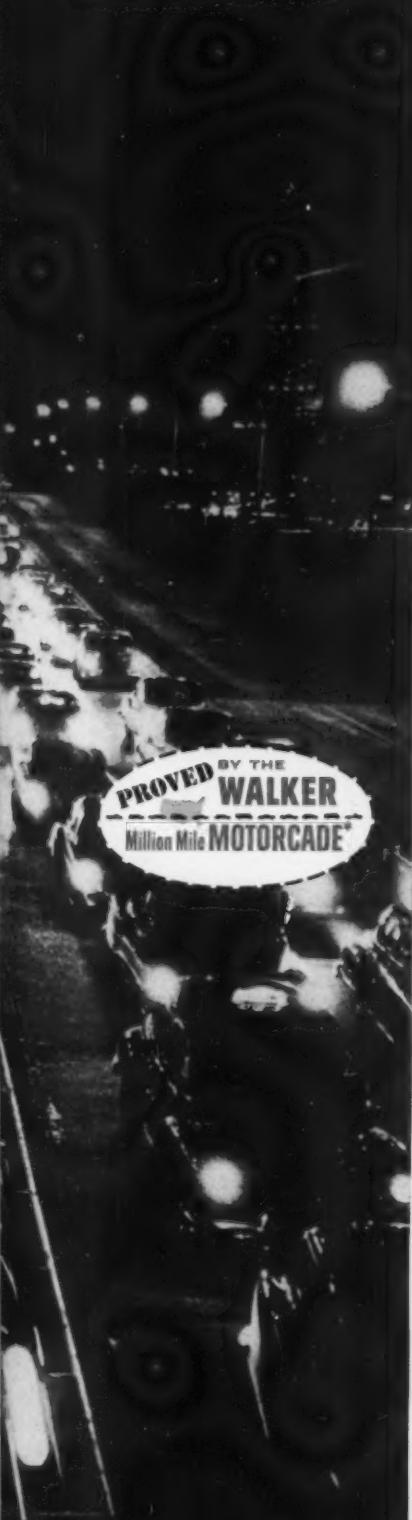


DELCO-REMY • DIVISION OF GENERAL MOTORS • ANDERSON, INDIANA

*"leader by a million*



*miles*<sup>99</sup>



# WALKER SILENCERS

AMERICA'S MOST PERFORMANCE PROVED MUFFLERS

## "MILLION MILE MOTORCADE" PROVES WALKER SILENCERS LAST 300% LONGER... CAN SAVE 13% ON GASOLINE

From coast to coast, Walker Silencers are tested and proved under actual day to day driving conditions . . . in stop and go traffic, on turnpike trips, in all kinds of weather. For years, millions of car owners have replaced faulty "other brand" mufflers with Walker Silencers. On millions of America's 1960 automobiles, Walker Silencers are standard equipment. Results show Walker "Precision Tuned" Silencers are the most satisfactory mufflers in every way. That's why when you install a Walker Silencer, your customers are always satisfied.

## WALKER'S EXCLUSIVE "average driver" test fleet proves

**WALKER SILENCERS SAVE POWER.** Control power-robbing back pressure to assure peak engine performance, greater "traffic-flash." Save up to 13% on gasoline!

**WALKER SILENCERS SAVE INSTALLATION TIME.** Every Walker Silencer fits perfectly. Each is designed to the exact specifications for every make automobile.

**WALKER SILENCERS LAST UP TO 3 TIMES LONGER.** Walker puts extra rust protection where it counts most—on the inside where rust starts. Walker "engineering-with-ideas" protects internally by premium coated steels, asbestos insulation, proper drainage.

**WALKER SILENCERS REDUCE CARBON MONOXIDE HAZARDS.** Ingenious internal bracing and contour design resists leakage from heat damage, road shock and back-fire. No leaky seams, to allow dangerous carbon monoxide fumes to escape into passenger compartment.

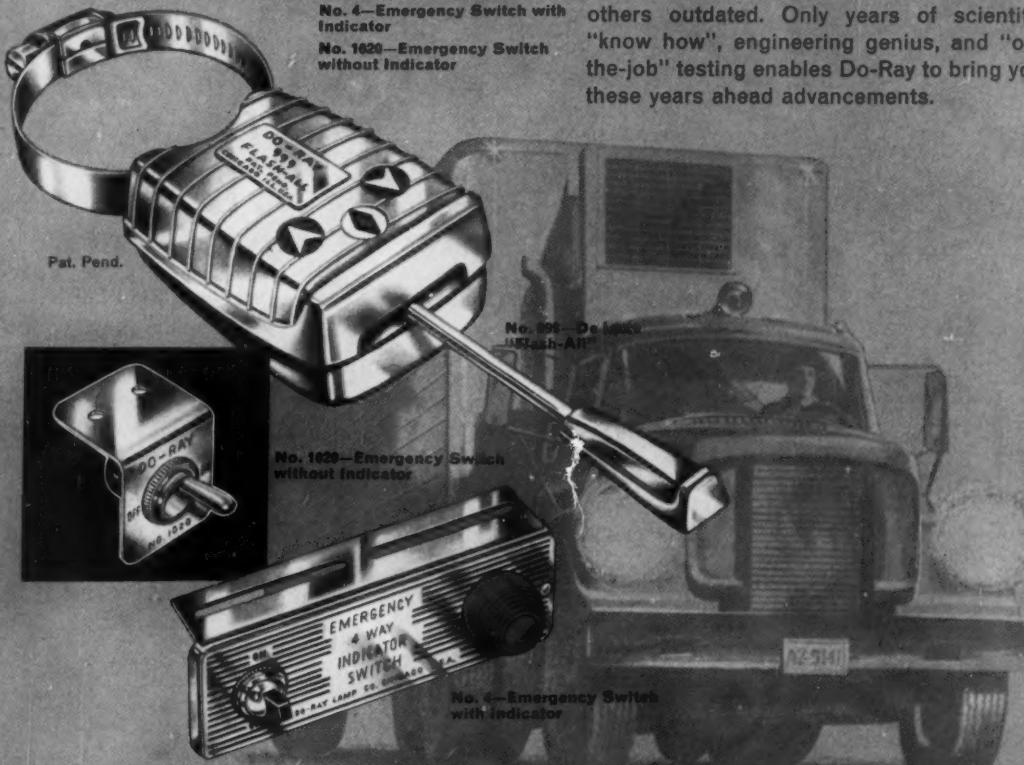
All this . . . and maximum silence without power loss. Ask your jobber for WALKER's profit-pulling Red Carpet merchandising and sales promotion. With Walker you win satisfied customers . . . long-run profits.

WALKER MARKETING CORPORATION • RACINE, WISCONSIN

**only DO-RAY® gives you the exclusive,  
revolutionary one lever, pull out feature**

# "FLASH-ALL"

other switches available:  
**No. 4—Emergency Switch with  
Indicator**  
**No. 1020—Emergency Switch  
without Indicator**



\* **No. 999—Deluxe "FLASH-ALL"**

Completely modern . . . one lever does the whole job; controls all the turn signals. Slide lever to either side to flash directional signals. Pull lever out to flash all signals at the same time . . . meeting new ICC regulations. Yes, just one lever now does the job . . . no need to fumble in the dark for special switch, button or handle. Pilot indicator lights; rigid construction; all die cast parts. Easy to install; fits all wiring circuits. 999 (Metallic Grey); 999-C (Chrome Plated). 6, 12, or 24 volts.

\* **No. 4—EMERGENCY SWITCH  
WITH INDICATOR**

Easy to install with existing turn signal Indicators; fits any wiring circuit. Heavy duty toggle switch flashes all turn signals simultaneously. Sturdy steel construction. 6 or 12 volts. Also available less bulb to keep inventory at minimum —consult price list.

**No. 1020—EMERGENCY SWITCH  
WITHOUT INDICATOR**

Economy model to fit any existing installations . . . any wiring circuit. In "on" position, flashes all turn signals simultaneously. Easy to install; sturdy steel construction; heavy duty toggle switch. 6 or 12 volts.

Furnished with either No. 534 — 12 volt Heavy Duty Flasher (flashes 1 to 6, 21 C.P. or 32 C.P. lamps); or No. 535 — 6 volt Heavy Duty Flasher (flashes 1 to 6, 21 C.P. lamps only). Consult price list for switches without flashers.

MOVE SAFELY WITH APPROVED LIGHTING & REFLECTING EQUIPMENT



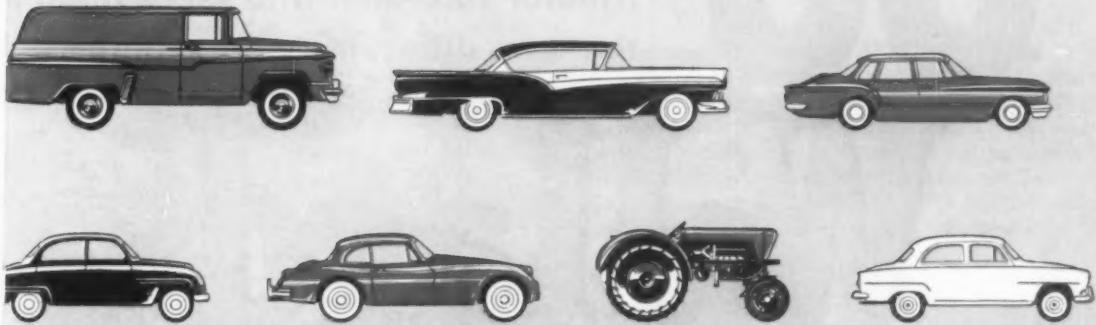
Since 1916 . . . engineering and designing with the future in sight.

**DO-RAY® LAMP COMPANY, INCORPORATED**

1458-68 South Michigan Avenue • Chicago 5, Ill., U.S.A.

Better products, *faster*, from your Federal-Mogul jobber:

FOR AMERICAN AND EUROPEAN CARS, TRUCKS AND TRACTORS



Federal-Mogul Engine Bearings...No. 1 choice  
in the quality replacement market for all cars



With an availability record in sizes and  
types second to none in the industry

Described by skilled mechanics the world over as *best for replacements*, Federal-Mogul engine bearings are the No. 1 choice for both imported and domestic cars. The Federal-Mogul line includes unlimited types and sizes to build like-new power back into engines for every automotive use.

Your Federal-Mogul jobber can give you these better products, *faster*. He'll see you get the right bearings to do a good job faster and more profitably, too. Call him first.

**FEDERAL-MOGUL** ENGINE **BEARINGS**

FEDERAL-MOGUL SERVICE

DIVISION OF FEDERAL-MOGUL-BOWER BEARINGS, INC. • DETROIT 13, MICHIGAN



# 80

## TRIPS TO

for retail automotive battery dealers,  
their employees and the Willard dis-  
tributor salesmen who serve them in  
the new, different and exciting

# Willard Winta-Charge

### 1960 FALL PROMOTION

It's a great, new idea...the *Willard Winta-Charge* Promotion! Through coast-to-coast television, Sunday newspaper supplement and national magazine advertising, we are telling car owners that a battery recharge now can save them trouble this fall and winter. To bring 'em in...to have the greatest opportunity to sell new Willard Batteries...Willard dealers will make a special offer!

**A complete battery recharge and this**



(Retail  
list price  
\$3.95)

**OFFICIAL Wilson  
FOOTBALL**

autographed by **Frank Gifford**



**BOTH FOR**

**\$25.0**

# THE ROSE BOWL



**NATION-WIDE TELEVISION in conjunction  
with NCAA Collegiate Football Game  
of the Week !**

Car owners everywhere will be told of the unusual *Willard Winta-Charge* offer on Willard Pre-Game Football Warmups preceding the season's greatest collegiate football games, telecast over the ABC-TV Network of more than 200 stations. These Willard programs will feature Frank Gifford, star halfback of New York Giants, member of Wilson Football Advisory Staff, and Chris Schenkel, nationally known sportscaster.

**More than TWENTY-EIGHT MILLION  
printed advertisements in  
THIS WEEK, PARADE, FAMILY WEEKLY  
and SPORTS ILLUSTRATED !**

Big ads to reach consumers will appear in three Sunday supplement magazines, put the *Willard Winta-Charge* story before readers of 295 newspapers across the country. *SPORTS ILLUSTRATED* will carry the word to a large audience of sports-minded, two-or-more-car families. Willard advertising will have deep penetration in the smaller city markets, as well as intensive coverage in metropolitan areas.

**Climaxing this spectacular event, Willard  
will send 80 HAPPY PEOPLE on a gala  
New Year's ROSE BOWL week end !**

Every retail automotive battery dealer is eligible in the Willard Rose Bowl Contest. So are his employees who sell and service automotive storage batteries. Simply pick the scores and yardage gains of five NCAA Collegiate Football Games. Winners fly to and from Los Angeles, live at an exclusive luxury hotel, see Disneyland, watch the Tournament of Roses Parade, thrill to the exciting Rose Bowl Game. Willard distributor salesmen named by winning dealers go along, too. Official entry blanks available from all Willard distributors. *Willard Sales, The Electric Storage Battery Company, Cleveland 1, Ohio.*

**Ask your Willard  
distributor for  
details NOW !**



**HIRSIG-BRANTLEY**  
**Service Means**  
**Complete Service**  
**in the South**



## for Manufacturers and Jobbers!

**★ IT'S EASY** to understand why Hirsig-Brantley Service means complete service for manufacturers and jobbers in the South. A quick look at the Hirsig-Brantley organization is all that is necessary....

**AUTOMOTIVE EXPERIENCE . . .** Hirsig-Brantley Service is complete because of the many years of automobile experience behind this organization . . . an average of over 13 years per man! These years of experience bring know-how to the creation and maintenance of the kind of service that builds business.

**SMALL TERRITORIES. . .** Hirsig-Brantley men have small territories so they can make more frequent calls on their customers and serve them better. From headquarters in 13 Southern cities, information brought to customers on Hirsig-Brantley lines is timely and complete.

**CAREFUL PLANNING . . .** The work of the Hirsig-Brantley men in the field is planned and directed from Headquarters by men with long and successful experience in the automotive field. A fully staffed home office promptly handles the necessary details as required by an efficient sales organization.



Lawrence M. Hirsig



Mrs. Lawrence M. Hirsig



B. T. Brantley



B. W. (Larry) Hirsig



**HIRSIG-BRANTLEY COMPANY, AMERICAN NATIONAL BANK BLDG., JACKSONVILLE 7, FLORIDA**  
**MANUFACTURERS DIRECT REPRESENTATIVES**

# ALL THIS FOR JUST \$170<sup>65</sup>

Parts, testing equipment, step-by-step tune-up manual, merchandising



EXCLUSIVE  
HOW-TO-DO-IT MANUAL



IMPORTANT  
SERVICE INFORMATION



SALES-BUILDING  
TUNE-UP MERCHANTISERS

## ALL THIS puts you in the ignition business IMMEDIATELY!

Look to NIEHOFF! NIEHOFF and *only* NIEHOFF has *both* ignition parts and testing equipment required to service the ignition needs of your customers. NIEHOFF's exclusive tune-up packages are basic . . . they contain all you need for ignition tune-up jobs.

What's really big news about this NIEHOFF *exclusive* is the price! The NIEHOFF MINOR (shown above) for just \$170.65\* includes point sets, condensers, rotors and distributor caps—all in a compact stock cabinet—plus all this equipment: Vacuum Gauge, Dwell Meter, Compression Gauge, Distributor Wrench, Point Gap Setter, Timing Light and Remote Control Switch. You get a FREE GIFT PACK of top-selling point sets, too, that more than cover the cost of the cabinet.

Add to this the industry's simplest HOW-TO-DO-IT manual—ABC OF MOTOR TUNE-UP—which details pro-

cедures from beginning to end, with easy-to-follow illustrations. A battery of big, bright merchandising pieces—banners, posters, decals, signs, charts, manuals, catalogs and bulletins—all help you become a leader in tune-ups.

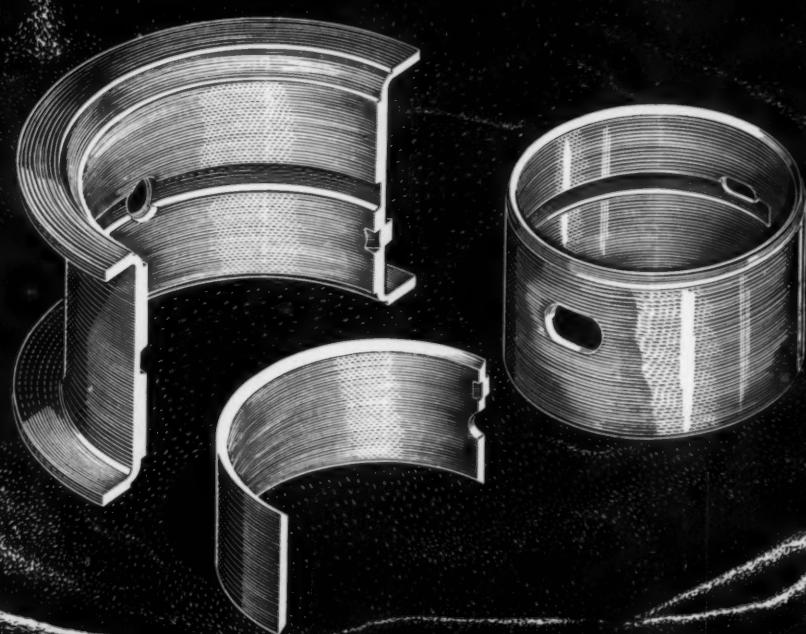
Equip now! NIEHOFF has everything you need to cash in on the 8 out of 10 vehicles requiring ignition work. Get full details from your NIEHOFF jobber or write NIEHOFF today!

\*Price subject to change without notice.

**NIEHOFF**  
AUTOMOTIVE PRODUCTS

**C. E. NIEHOFF & CO.** • 4925 W. Lawrence Ave., Chicago 30, Ill. Branch: 1330 Olympic Blvd., Los Angeles 15, Calif.  
Ignition parts for cars, trucks, tractors, industrial equipment, small engines, foreign cars • Ignition Testing Equipment • Hydraulic Brake Parts

*Presenting...*



Cam Bearings  
Connecting Rod Bearings  
Main Bearings

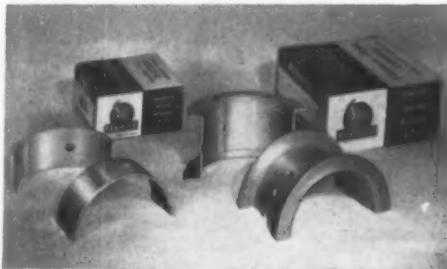
# *A Complete Line of*

## **ENGINE BEARINGS**

**Used as Original Equipment—Accurate To .00025 Inch**

When you supply Permite Preferred bearings to your customers, you are making friends—for these original equipment bearings fit perfectly, have a longer life expectancy, make money for the man who installs them and save money for owners of all types of vehicles.

Permite Preferred engine bearings are produced under the most modern conditions of quality control. Materials are accurately alloyed . . . multi-inspections guard against hidden flaws and surface imperfections . . . bearing walls must be accurate to .00025 of an inch. Aluminum Industries is an important supplier of bearings and engine parts for manufacturers of cars, trucks, buses and tractors throughout the country because of unfailing quality of Permite Preferred products.



**NEW ALUMINUM-ON-STEEL BEARINGS FOR HIGH-COMPRESSION ENGINES OFFER A LIFE EXPECTANCY 2 TO 3 TIMES OTHER MATERIALS IN IDENTICAL ENGINES BY ACTUAL TEST!**

20% cooler-running . . . carry loads up to 10,000 PSI on protected areas . . . show no wear after thousands of hours . . . endure rubbing speeds up to 20,000 FT/MIN . . . unaffected by oil additives or by-products of combustion . . . run on cast iron, forged steel or chrome plated shafts . . . completely interchangeable. More sizes and applications than any other line! "Get it from your jobber."

*The Most Complete Line of Engine and Chassis Parts Available . . . Bearings, Pistons, Cylinder Sleeve Assemblies, Valves, Water Pumps, King Bolt Sets, Tie Rod Ends, Drag Link Assemblies, Spring Bolts and Shackles, Stabilizer Links, Ball Joints, Front End Suspension Parts . . . Today's Bigger and Better Line of Permite Preferred Parts. Call Your Jobber!*

**ALUMINUM INDUSTRIES, INC., Cincinnati 11, Ohio**



# **Permitite *preferred***

*by vehicle manufacturers / car and truck dealers / garage and service men / fleet operators*



...Show him these  
and you'll sell  
these...

...and make  
two profits  
instead of one

YOUR CUSTOMER WANTS THE PROTECTIVE QUALITY OF

# TROSTEL OIL SEALS

Sure, you can put back those old, damaged seals, but why should you? No matter what you charge your customer, he expects just one result . . . a *quality* job. You can't give him quality with old, used seals. You can . . . with new Trostel Oil Seals. And it's *protective* quality . . . protects the customer on the road, protects profits in your shop. *Two* profits, you know . . . one for the job, and one for the seals! Ask your jobber.



ALBERT TROSTEL PACKINGS, Ltd. • Lake Geneva, Wis. • A complete producing organization for oil seals, o-rings and packings

SEAL-N-TOOL Oil Seal Service Stock —  
You buy only the stock. The rest  
comes with it . . . metal cabinet, 5  
professional metal tools with built-in  
rack, automatic inventory control,  
passenger car application chart, tool  
selector chart. Makes selling and  
installation easy and sure.

Trostel Oil Seals are backed by the same  
guarantee of satisfaction as century-  
famed Trostel Leathers. Every seal  
produced under quality control.

# Preee zenting: The '61's

The newest offerings by the car factories appear on the following pages. You'll find quite a few changes—from the optional warm-air heater available for the Corvair to the lowered compression ratio built into De Soto's engine (to permit better usage of regular-grade gasoline).

For the first time Detroit will see these units debut as a group in that city's mammoth Cobo Hall, where the National Automobile Show will be staged Oct. 15-23 and which will feature a kick-off address by President Eisenhower in person.

That the upcoming year is to bring greater weight by the compacts in the marketplace is something you already anticipate.

What's ahead for dealerships handling more than one make of car? Will the sales of medium-priced units drop further in favor of the low- or lower-priced cars? Will the trend toward fewer dealerships with bigger sales continue?

These are just a few questions in dealers' and factory executives' minds as the showrooms once more become the mecca of car-loving and car-buying Americans.

How many cars are going to be sold this new model year? Around 7,000,000, including around 400,000 foreign units (which are expected to drop further in the face of American-made "smalls"). That's the figure many manufacturers are kicking around on preliminary production schedules.



# Rambler 6 Engine Goes Aluminum

THE Rambler Classic Six features a new six-cylinder engine with a die-cast aluminum block, the first aluminum engine block produced in America for passenger-car use by the die-cast method. The engine weighs 80 pounds less than the comparable cast iron engine on the 1960 Rambler.

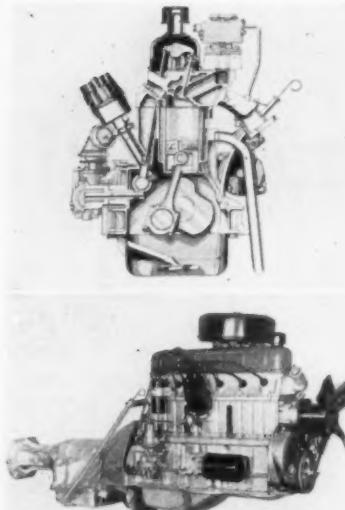
Production was preceded by more than six years of American Motors' design experience with die-cast aluminum engines and the development of specialized production facilities costing more than \$5,000,000, company officials said.

The aluminum block engine is the result of a cooperative research and development program between American Motors and the Doehler-Jarvis Division of National Lead Co., which will perform the die-casting operation in its Toledo, Ohio, plant.

A newly designed oil pump eliminates the possibility of hydraulic lock and provides proper pressure calibration. A full-flow oil filter is supplied as standard equipment.

Improved economy and performance reportedly result from a redesigned intake manifold which provides increased fuel-air velocity.

During the development stage,



Shown are two views of the 1961 Rambler Classic's new six-cylinder engine with a die-cast aluminum block, the first aluminum engine block produced in America for passenger-car use by the die-cast method. The engine weighs 80 pounds less than the comparable cast-iron engine. The die-cast block is made of special aluminum-silicon alloy for hardness and controlled temperature expansion. Centrifugally cast iron cylinder liners are chemically and mechanically bonded to the block. Hydraulic valve lifters are used to assure quiet valve operation under all conditions.

The six has a compression ratio of 8.7 to 1, piston displacement of 195.6 cubic inches and a torque rating of 180 at 1,600rpm. The Rambler Classic V-8 at 200hp has a compression ratio of 8.7 to 1, piston displacement of 250 cubic inches and a torque of 245 at 2,500rpm.

As for the Ambassador V-8, built on a 117" wheelbase, it will be available in six four-door models, including a Super and Custom sedan, Super and Custom two-seat station wagon, and Super and Custom three-seat station wagon.

The Ambassador V-8 features a new ceramic-coated muffler and tailpipe, a cushioned, acoustical fiberglass ceiling panel, vacuum-powered four-door locking system, a new heating and ventilating system and a new air-conditioning system.

The 250hp V-8 is equipped with a twin-barrel carburetor. It has a compression ratio of 8.7 to 1, a displacement of 327 cubic inches, and a bore and stroke of 4 x 3 1/4". It operates on regular-grade gasoline.

Offered as optional equipment is a 270hp V-8 featuring a four-barrel carburetor, a compression ratio of 9.7 to 1 and a dual-exhaust system.

Three transmissions are available on the Ambassador. Flash-O-Matic automatic transmission, operated by a pushbutton system, is offered as optional equipment. Optional overdrive and standard synchromesh also are offered.



Left: Horsepower of this Rambler Classic Six, with the aluminum engine, is 127; the Classic V-8 is rated at 200hp.

Below: The 117"-wheelbase Ambassador V-8 is available in six four-door models, including sedans and two-seat and three-seat station wagons.



the aluminum blocks were exhaustively tested by the latest aircraft industry method of using cemented plastic with polarized light to establish static and dynamic stress points.

Horsepower of the Rambler Classic Six remains at 127; the Classic V-8 is rated at 200hp. Power-pack options are available on both. Regular-grade gasoline is recommended for all models.



# The '61 Mercury

## Six-cylinder engine offered first time as Meteor appears



MERCURY has increased its coverage of the low-price field by introducing two all-new lines—the Meteor 600 and the Meteor 800.

"The dramatically lower price of the new Mercury Meteor places it squarely into competition in the low-price field," it was announced by Ben D. Mills, Ford Motor Co. vice president and general manager of the Lincoln-Mercury Division.

"We have completely re-styled and engineered our products to compete in the low-price volume market," Mills said. "We have shortened our cars by 4½" and made them 1½" narrower, yet we have retained Mercury's interior comfort, riding qualities and luxury styling."

The movedown into the low-price field marks a wide departure from Mercury's traditional competition in the medium-price market. The Mercury line for 1961, which consists of 14 models, is identified as the Meteor 600 series, which is priced with the middle series in the low-price field; the Meteor 800 series, priced with the top series of the low-price field; and the Monterey series, at the top of the line. In addition, there are four Commuter and Colony Park station wagons.

For the first time in its history, Mercury will include a six-cylinder engine.

Mercury chassis engineers have developed a new type of suspension system that reportedly gives an unusually smooth ride. This system,

Top: This is the Meteor 600 four-door sedan. For the first time in its history, Mercury is offering a six-cylinder engine this new year.

Above: The Monterey four-door is 4½" shorter and 1½" narrower, as other Mercurys for '61, a noticeable trend throughout the industry this year.

named "cushion-link" by the engineers who developed it, incorporates an entirely new mechanical linkage in both front and rear suspensions. Road bumps and vibrations are absorbed more completely within this suspension, because the wheels are allowed to move slightly rearward as well as upward.

The suspension is on all Meteor 800, Monterey and station wagon models.

The Mercury will require no chassis grease job for up to 30,000 miles—which, in many cases, is longer than the original buyer drives a car. The chassis fittings are pre-lubricated at the factory with a new lubrication compound that contains molybdenum-disulfide. Not only does this extended lubrication save the time and expense of a monthly grease job, but it makes the car ride as if it were continuously newly-greased.

Additional passenger comfort is provided by the extensive use of sound-proofing materials throughout the entire body to block noise and vibrations at the source. Butyl rubber is used extensively where the body is mounted to the chassis to absorb road shock and noise.

Roadability is improved with front wheels one inch wider apart.

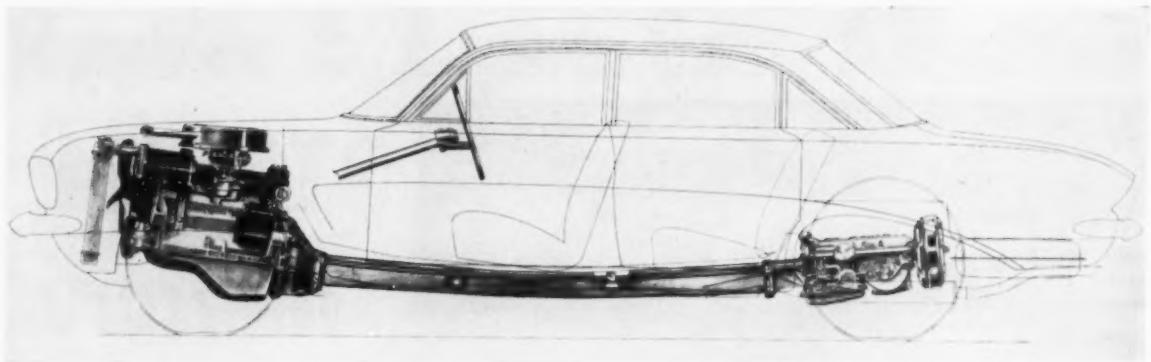
Steering is made easier and service life is extended by improvements in both manual and power steering units.

Major improvements in the electrical system include more efficient heating, with warm-up vent which directs a high volume of warm air toward the driver.

The lowest-priced Meteor 600 series consists of a two-door and a four-door sedan; the middle series, Meteor 800, has a two-door and a four-door model in both sedans and hardtops; the top series, the Monterey, has a two-door and a four-door hardtop, a four-door sedan and a convertible. All station wagons are four-door models, with both six- and nine-passenger wagons in each of the Commuter and Colony Park series.

Wheelbase is 120"; over-all length is 214.6" and width 79.6". Horsepower is 135 in the 223-cubic-inch six-cylinder engine; 175 in the 292-cubic-inch V-8; 220 in the 352-cubic-inch V-8, and 300 in the 390-cubic-inch V-8. All but the 390-inch engine use regular gas.

As is true of all American-made cars and trucks, the Mercury models will be shown in Detroit's first National Automobile Show at Cobo Hall Oct. 15-23.



Note how the transaxle connects with the rear-placed transmission, virtually eliminating any transmission "tunnel."

# That Unusual Car: Tempest

PONTIAC's new Tempest series—a four-door sedan and four-door station wagon—is built on a 112" wheelbase and features a rear transmission (transaxle) joined to a front-mounted four-cylinder engine by a flexible propeller shaft conceived and developed by Pontiac.

Thus the Tempest becomes the first American car to achieve the front engine-rear transmission ar-

rangement—important to a perfectly balanced automobile. It is the first car in the world to employ an automatic transmission using this arrangement.

The Tempest has adopted the regular Pontiac V-8 powerplant (minus the left-hand bank).

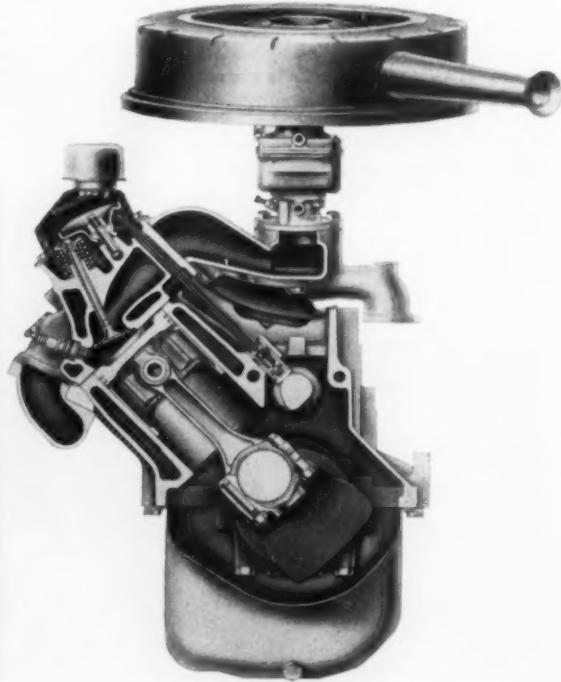
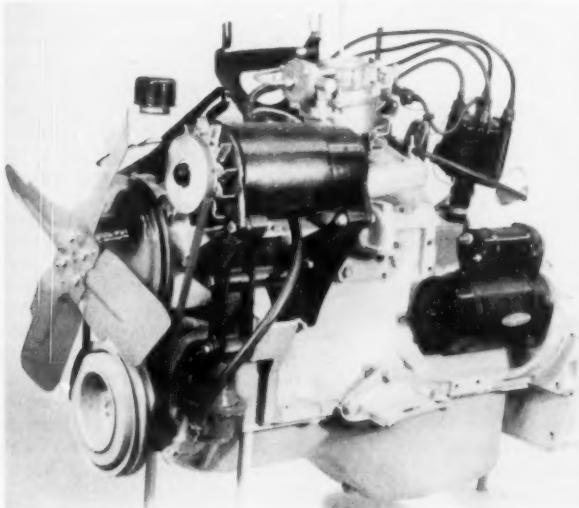
Following Pontiac tradition, Tempest design features wide-track wheels, independent four-wheel suspension and unit-body construc-

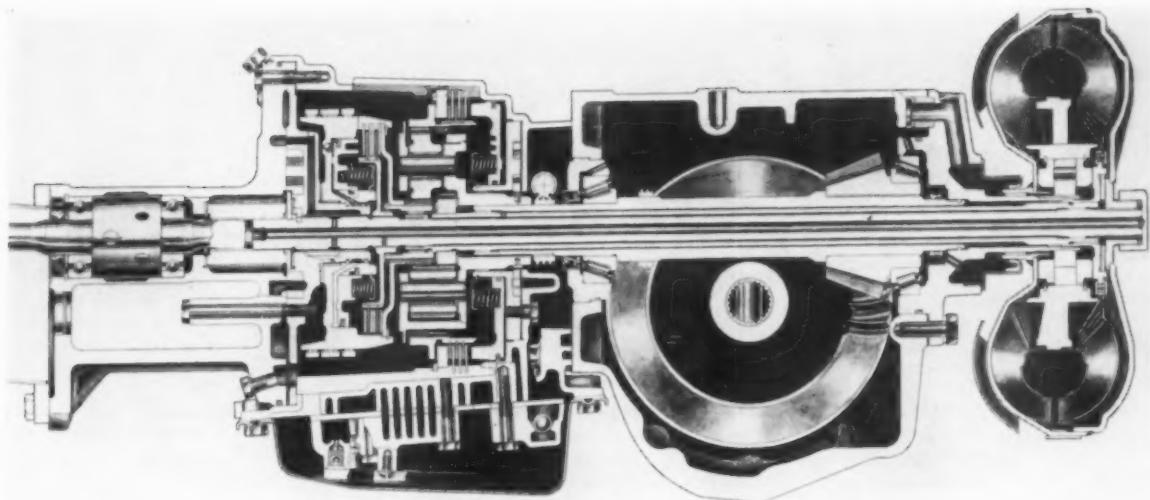
tion.

Standard power will be the 195-cubic-inch, four-cylinder, regular-fuel engine. Inclined at 45°, this short-stroke four retains the same components as the regular V-8, including main bearings of three-inch diameter, harmonic balancer, tin-plated pistons, aluminized valves and hydraulic valve lifters. It has a 4 1/16" bore and a 3 3/4" stroke.

A premium fuel engine with a

The Tempest four is basically the right-hand bank of Pontiac's time-tested V-8. This design reportedly makes the best possible use of underhood space, resulting in easy servicing of all components. Also available in the Tempest is a 215-cubic-inch, regular-fuel V-8 for use with both synchromesh and automatic transmissions. This engine has a two-barrel carb and develops the same horsepower as the four.





Here's how the transmission fits into the picture in the rear of the Tempest.

#### TEMPEST ENGINE & TRANSMISSION COMBINATIONS AVAILABLE

Valve In-Head, 194.5 Cubic Inch

4 cyl. In-Line Engine, 4-1/8" Bore, 3-3/4" Stroke

Std. or Optional	Transmission	Comp. Ratio	Carb.	BHP	Advertised Max. Torque
Standard	Synchromesh	8.6:1	1 Bbl.	110 @ 3800	190 @ 2000
Optional	Automatic	8.6:1	1 Bbl.	130 @ 4400	195 @ 2200
Optional	Synchromesh	10.25:1	1 Bbl.	120 @ 3800	202 @ 2000
Optional	Automatic	10.25:1	1 Bbl.	140 @ 4400	207 @ 2200
Optional	Synchromesh or Automatic	10.25:1	4 Bbl.	155 @ 4800	215 @ 2800

215 Cubic Inch V-8 Regular Fuel Engine  
Bore 3.50", Stroke 2.80"

Optional      Synchromesh or Automatic      8.8:1      2 Bbl.      155 @ 4600      220 @ 2400

Axle Ratios Available: Standard, 3.55:1; Economy, 3.31:1; Performance, 3.73:1

four-barrel carburetor will be offered in addition to the regular fuel, one-barrel carburetor engine. Compression ratios are 10.25 to 1 for premium fuel and 8.6 to 1 for regular fuel engines.

Design of the engine reportedly affords the best possible use of engine compartment space and provides easy serviceability. The exhaust pipe and manifold are on the right side of the engine, while the intake manifold, carburetor, fuel pump, generator and starting motor are on the left side. The cast-iron cylinder block has three intermediate bearing bulkheads and five main bearings for the crankshaft.

Smoothness in the new L-4 engine is achieved by balancing the pearlitic malleable iron crankshaft in assembly to .50" ounce with the crank rotating, and by the use of a harmonic balancer and four integrally cast counterweights that minimize crankshaft deflection.

Pontiac's V-8, assures efficient operation and maximum life of the L-4. A 12-volt electrical system meets the challenge of modern requirements for ignition performance, generator output and cranking speed.

Standard transmission is a manual-shift, three-speed conventional synchromesh, while an automatic transmission is offered as an option. Both are mounted on the differential carrier, providing ideal front-to-rear weight relationship, riding and handling characteristics and a reduction of floor tunnel height to almost negligible proportions.

The synchromesh transmission is light weight and compact and shares a common lubrication system with the rear axle. The automatic transmission has its own separate lubrication.

(Continued on page 76)

Also available is a 215-cubic-inch, aluminum, water-cooled V-8 for both synchromesh and automatic transmission and using regular-grade gasoline. A positive pressure lubrication system, a modification of

Built on a 112" wheelbase, the sedan features a four-cylinder, front-mounted engine, a rear transmission and unit-body construction, with an over-all length of 189.3". The in-line engine has a bore of 4 1/16" and stroke of 3 3/4". Horsepower is 110@ 3,800rpm on the standard engine, but combinations are available, including the V-8 powerplant, which will turn out as high as 155hp@4,800rpm.





The four-door Vista hardtop in the Bonneville series is the most popular Pontiac body style.

## Pontiac Offers New Bodies

**N**EW bodies with increased passenger space, a new perimeter-type frame, more efficient front and rear suspension systems and a lighter - but - higher - performing "Trophy" V-8 engine head a list of new engineering features in the 1961 Pontiac.

The 1961 Pontiac is as much as .9" lower, four inches shorter and 2.5" narrower. Over-all length of Catalina and Ventura sedan, hardtop and convertible models is 210" with Star Chiefs and Bonnevilles measuring 217". All Safaris measure 209.7". Over-all height ranges from 54.9" with convertible models to 56.9" with station wagons. All body styles have a maximum over-all width of 78.2".

Although bodies are smaller, important interior dimensions have been improved to provide increased driver and passenger comfort. Headroom is up to two inches greater and seat height has been moved up-

ward 2.3" on most models for better leg support and a more natural, relaxed sitting position.

Considerable engineering detail also has been focused on greater ease of entrance and exit. Front seat to steering wheel clearance is extended 12% and the windshield corner has been virtually eliminated. Doors open as much as five inches wider as the result of a new hinge design.

Hood and front fenders taper forward to the twin grille, effecting a 17.5% improvement in over-hood vision. New custom roof styling eliminates the small triangular rear side window on four-door sedans.

Largely responsible for the improvement in the passenger compartment space is a new frame of perimeter design. Five cross bars joining parallel side rails reportedly insure structural rigidity and provide for mounting of engine and chassis components.

With the side rails of heavy steel encircling the passenger compartment, lowering of the floor is permitted for improvements in seat and tunnel height and headroom. In addition, the design allows a two-joint driveshaft of fewer moving parts as well as a simplified exhaust system.

Pontiac's wide-track design has been proportionately increased for 1961. Although over-all width has been reduced 2.5", tread decrease is only 1.5".

All Catalina and Ventura models and the Bonneville Safari are built on a 119" wheelbase. Star Chiefs and the other Bonnevilles have a wheelbase of 123".

New lower control arms have rubber bushings at pivot points on the axle and frame and are angled inward toward the center of the car for greater handling ability.

Employment of two separate up-  
(Continued on page 84)

The two-door Ventura sport coupe lines up here with the four-door Star Chief sedan.



# Cadillac Stresses Comfort

THE 1961 Cadillac body is more convenient to get in and out. Head room is increased, as is leg room, and seating comfort is increased with greater chair height.

Additionally, advancements have been made in ride, handling ease, quietness of operation and braking.

Entrance and exit convenience is improved as a result of the forward sloping windshield pillar, by a rear door that opens  $7\frac{1}{2}$ " further, by moving forward the center stub pillar, by narrowing the rocker step-over and by increasing door opening heights.

Considerable improvement is made in head room, leg room and seating comfort. Here is how this has been accomplished: The chassis

and frame modification permit lowering of the front floor, giving greater chair height for improved seating and greater leg room. Seat cushions are deepened. The tunnel is narrower and lower, resulting from the repositioning of the engine and transmission.

The car is more maneuverable, turning in a 43' circle—three feet less than last year.

Still another form of comfort—quietness and smoothness of operation—has advanced even further in 1961. This comes about as a result of the new front suspension and the improved body structure. The new structure permits the reduction of several mounts in the center of the body, eliminating points of noise

and vibration transmission from the chassis to the body. A new-type rubber support for the propeller shaft bearing adds to quietness and smoothness of the drive line.

Other engineering advancements on the 1961 Cadillac include a lubrication-free chassis, a new windshield wiper system covering 15% greater wiping area, a single exhaust system for greater life and an anti-smog kit that will be standard on all California-bound cars and optional elsewhere.

Two other options will be offered for the first time. They include a rear window defogger and a non-slip differential.

Horsepower continues as in the '60's—325 @ 4,800rpm.

Below: The new "face" is accented by a visor-like cap formed by the front fenders and hood.

Bottom: Cadillac's symbolic identification feature—the tail fins—are retained, although lowered slightly. The taillamps are integrated again into the tail fin.



Below: The instrument panel and instrument cluster are of a new design, with further refinements in ease of operation and greater visibility. A 16" steering wheel is used, one inch smaller.

Bottom: The rear styling and lighting arrangement immediately identify the car as a Cadillac.





## Lincoln Continental Shrinks Slightly

THE 1961 Lincoln Continental has smaller dimensions in height, width and length.

The car is produced in two models, a four-door sedan and a four-door soft top convertible, with a completely automatic top. This is the first four-door soft top convertible built in America in many years.

The car is 212.4" long, 78.6" wide and 53.5" high, with a 123" wheelbase.

The car's torsional rigidity (ability to stand twists and strains) has reportedly been improved 67%. Inside, comfort was improved by reducing the transmission hump 50%.

The Continental has a smoother ride due to improvements in the front and rear suspensions, shock absorbers and spring mountings. A greater use of rubber isolates metal components. In effect, the car is riding on a layer of rubber.

In addition, the car is easy to handle because of a lower center of gravity, a reduction in wheelbase and over-all length and a smaller-diameter steering wheel set at a new angle.

Also aiding the driver are better brakes with a reported 100% increase in potential life and new tandem-action hydraulic windshield wipers which provide variable speeds and quiet operation.

Maintenance features include a 30,000-mile lubrication-free steering and suspension system, a 6,000-mile oil change and nylon coating on all instrument panel wiring. Rocker panels are made of galvanized steel.

The Lincoln Continental will undergo three exclusive major tests in addition to the usual wide range of quality inspection methods. Every car will be road-checked, each engine and transmission will have a lengthy "hot" test and all wiring will be subjected to an electronic circuit testing machine.

A 12-mile road run will be given all Lincoln Continentals, the longest road check given any car in American industry. Nearly 200 items will be examined during this test.

The engines are rated at 300hp at 4,100rpm.

Entrance into the car is easy because both doors open from the center, and the dogleg has been eliminated. Once the doors are unlatched, they have built-in assists which make it easy to open the doors.

Contour seats, with six inches of foam rubber, provide a bucket-type seat feeling.

A retractable air-conditioning unit, situated in the center of the instrument panel, is optional.

"She wants to know if you can run over the body and check the danger points."



SOUTHERN AUTOMOTIVE JOURNAL

# Small Buick Joins Its Elders

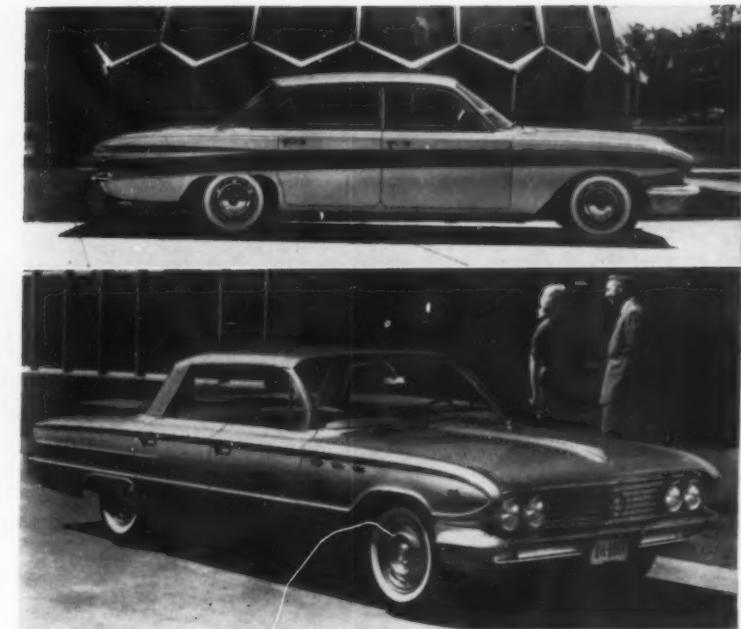
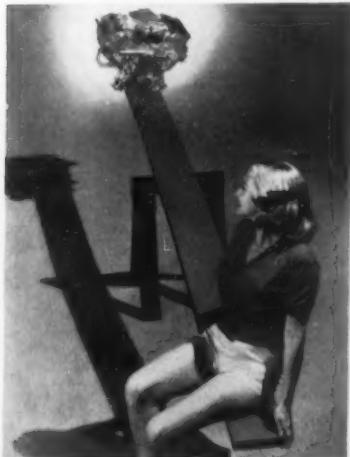
**B**UICK for 1961 includes the new Special, powered by an aluminum V-8 and designed to sop up some of the expanding "compact" market.

The Special is 188" long and weighs only 2,700 pounds—1,600 pounds lighter than conventional models in the Buick line. Its light weight, moved by a 155hp high-compression engine, "gives the Special lively performance characteristics comparable to regular-sized Buicks," engineers said.

The whole line is styled with sweeping lines, a conspicuous absence of chrome, and from the Special through the Electra 225 more headroom and greater passenger comfort are achieved through extensive engineering and styling changes.

Riding comfort has been improved by lowering the transmission tunnel and the additional headroom has been provided by the use of a com-

The extreme light weight of the aluminum V-8 which powers the new-sized Buick Special is demonstrated in this photo of a 105-pound model balancing the cylinder block and head on a seesaw. The whole engine weighs 318 pounds, which for its output of 155hp makes it one of the lightest powerplants on the market.



Top: Big-car comfort and styling reportedly are combined with the economy of a small car in Buick's new lightweight four-door sedan. The Special is mounted on a wheelbase of 112", is 188" long and weighs 2,700 pounds—some 1,600 pounds lighter than conventional-size Buicks. Its high-compression aluminum V-8 develops 155hp. It comes in two styles—a four-door sedan and a four-door wagon, with a de luxe version offered in each. A newly-designed dual-path turbine drive transmission is optional. Above: LeSabre models are nearly five inches shorter in '61.

pletely new frame design.

Windshields have been restyled and doors, both front and rear, open wider for easier entrance and exit. The rear deck is virtually flat and blends into the fender lines.

The Special looks exactly like what it is—a small Buick, even to the traditional ventipo.

The Special engine weighs only 318 pounds and is said to be the lightest liquid-cooled powerplant per cubic inch of displacement on the market. It produces 220 foot-pounds of torque, has an 8.8-to-1 compression ratio and uses regular gasoline. Aluminum components include the cylinder block and heads. Alloy iron cylinder sleeves are cast integrally within the block.

Four V-8 engines available in the regular line employ a wide variety of aluminum alloy parts, too, with a resultant weight reduction and efficiency increase for all '61 models.

An entirely new air-cooled torque converter transmission was termed "probably the most-simplified automatic transmission on the market" and is available as an option on the Special. An aluminum case, a converter pump with radial fins and two air exhaust openings in the converter lower housing provide the cooling.

A three-speed synchromesh trans-

mission, designed specifically for the Special, is standard equipment.

Buick's turbine drive transmission has been reduced six inches in length and 20 pounds in weight through a compact design. This permits substantial lowering of the floor tunnel. Turbine drive is standard on the LeSabre and all other series in the regular line.

A two-piece driveshaft with a specially designed constant-velocity universal joint is a new Buick concept and will be on all models in the '61 line. This "CV" universal joint resembles two conventional joints placed back-to-back and makes possible a smooth-running drive line. This also permits a considerable reduction in the floor tunnel and thus has provided the greater interior legroom in all models.

The Special has a unitized body. An improved concept in frame design—an X-frame providing fewer body mounts and consequently less road noise transfer—is incorporated in Buick's regular line.

The transverse muffler system, first introduced by Buick, has been improved and is used throughout the 1961 line. Mounted crosswise at the rear of the car, the muffler maintains a minimum of back pressure with improved fuel economy.



The convertible, a new model for 1961, has an electric-hydraulic top in white or black vinyl.

## Smaller American Changes Styling

**F**OR the first time since its introduction more than ten years ago as the original compact car, the Rambler American for 1961 sports completely new styling.

A convertible and a four-door station wagon have been added to the line, which also includes two-door station wagons and two-door and four-door sedans. A total of 13 models are offered.

The 100"-wheelbase American is 5.2" shorter—now 173.1" in length—and three inches narrower than last year's model. The reductions in bulk were made possible by reducing the front and rear overhang, and by slimming down the side panels. At the same time, usable trunk space has been increased 50% to 23.8 cubic feet.

The convertible will not be avail-

able until about the first of the year.

A new long-life standard-equipment feature for 1961 is the ceramic-armored exhaust system (see page 11), guaranteed to the original owner as long as he owns the car. This process, originally developed for use in jet aircraft, assures resistance to engine acids and moisture, the main causes of muffler and tailpipe deterioration. The ceramic coating is bonded to the metal by firing at 1,500° F.

The 125hp overhead-valve six is standard on all Customs and optional on Super and De Luxe models. Standard on Super and De Luxe models is the L-head six, which develops 90hp.

A special economy feature of the 125hp engine is the water-heated

intake manifold cover which provides quick-warming of the air-fuel mixture, especially beneficial during cold weather. An improved carburetor is used.

Both engines have larger camshaft bearings for longer life, and the crankshafts have been changed for smoother operation.

Both engines also have new carbon-core high-tension wires for better ignition operation. On the L-head engine, spark plugs are covered by rubber covers to eliminate moisture.

Heights of the rear doors on all models have been raised to allow easier entry and exit.

All-Season air conditioning also is new and is available as either factory-installed equipment or as a dealer-installed item.

This four-door station wagon is a new model for 1961. The rear luggage opening is two inches wider than on past models. Upper section of tailgate, which can be set in three positions, is framed in extruded aluminum. Wagon's cargo space has been increased 23% to 64 cubic feet.

The '61 line is available in a full range of two-door and four-door sedans and station wagons and a two-door convertible. The 125hp OHV six is standard on Custom models and optional on Super and De Luxe jobs. Standard on the latter is the L-head six with 90hp as before.



# Lamps Highlight Imperial

A NEWLY-STYLED 1961 Imperial features twin free-standing headlamps.

The distinctive chromed lamps are completely removed from fender and coachwork metal, and mark the first time in nearly a quarter of a century that this type of lamp will appear on an American production automobile.

The 1961 models retain much of the styling identity established with the introduction of the modern version of the Imperial in 1957 and carried forward in subsequent models.

Imperial's styling policy was said to be aimed at maintaining continuity of design each year in the interest of maintaining the owner's investment.

The 1961 models are as powerful and roomy as previous Imperials. The engine is rated at 350hp, wheelbase is 129"—both unchanged from 1960.

As in 1960, the Imperial line will include a LeBaron four-door hardtop with limousine-styled rear window and canopied effect in the roof which gives a town-car appearance and feeling of privacy for rear-seat



passengers. The LeBaron scored the biggest sales gains of all Imperials during the 1960-model year.

In the Imperial Crown series there will be a four-door hardtop, a two-door hardtop and a convertible. In the lower-priced Custom series there will be a four-door hardtop and two-door hardtop.

Mechanical improvements include an alternator as standard equipment for improved battery charging at low engine speeds; carburetor improvements and refinements in the electrical system, steering gear, brakes and suspension. There is a new electrically operated wind-

shield washer (see page 44) which sends four high-pressure jets of washer fluid against the windshield.

The alternator replaces the direct current generator. Primary advantage of the alternator is delivery of electrical current at idle engine speeds. A special version of the alternator, with a maximum output rated at 40 amperes, is standard equipment for cars equipped with air conditioning.

Improved body corrosion prevention techniques have been added in a three-step process which includes coating the body sill with wax, reportedly assuring many years of rustfree door sills even in extremely corrosive areas.

All Imperials are undercoated at the plant, and have an underhood silencing pad of thick fiberglass, assuring efficient sound absorption in these two areas.

Imperial air-conditioning units feature new, rectangular outlets situated on the upper surface of the instrument panel. The outlets telescope up from the instrument panel to permit passengers to aim cool air jets for maximum effect.

The parking brake release mechanism is also newly-designed. The release lever is pulled toward the driver and pushed down before the brake is released as an added safety measure.

(Continued on page 120)

The free-standing headlamps (above) are a quickly recognizable feature. The grille (below) is simple in design. The powerplant continues, as in 1960, with 350hp.



# Chrysler's Electric Washer

A NEW design for electric windshield washers has been released as standard equipment for Chrysler and Imperial. It is also available as special equipment on other models.

A D.C. electric motor drives a positive displacement gear-type pump to provide windshield washer solution through four nozzles simultaneously when a button at the center of the wiper switch is depressed. Complete control of both the washing and wiping action by the driver is provided through the combination washer and wiping switch mechanism.

The motor and the gear-type pump are combined in a single compact assembly. Rubber hoses convey washer fluid from the reservoir to the pump and from the pump to the dual outlet nozzles.

The washer motor is  $1\frac{1}{2}$ " long and 1" in diameter. It drives the pump through a flexible spring steel strip. The flexibility of the drive allows for some misalignment in assembly and also dampens shock loads on the pump when the washer motor starts up. The body of the pump is plastic, which is non-cor-

rodible and extremely durable.

The electric motor is a permanently lubricated, sealed unit. Neither the pump nor the motor is serviced—they are replaced as a unit assembly.

The motor is protected from overheating due to overloads such as continuous operation or stalling of the pump by a circuit breaker. If the button is held depressed for about 15 seconds, the thermal-type circuit breaker cuts out. This stops the motor, safeguarding it from overheating and also prevents the reservoir fluid content from being completely exhausted at a single operation. The circuit breaker also protects the motor from damage should the washer fluid freeze.

## DIAGNOSIS

### CONDITION

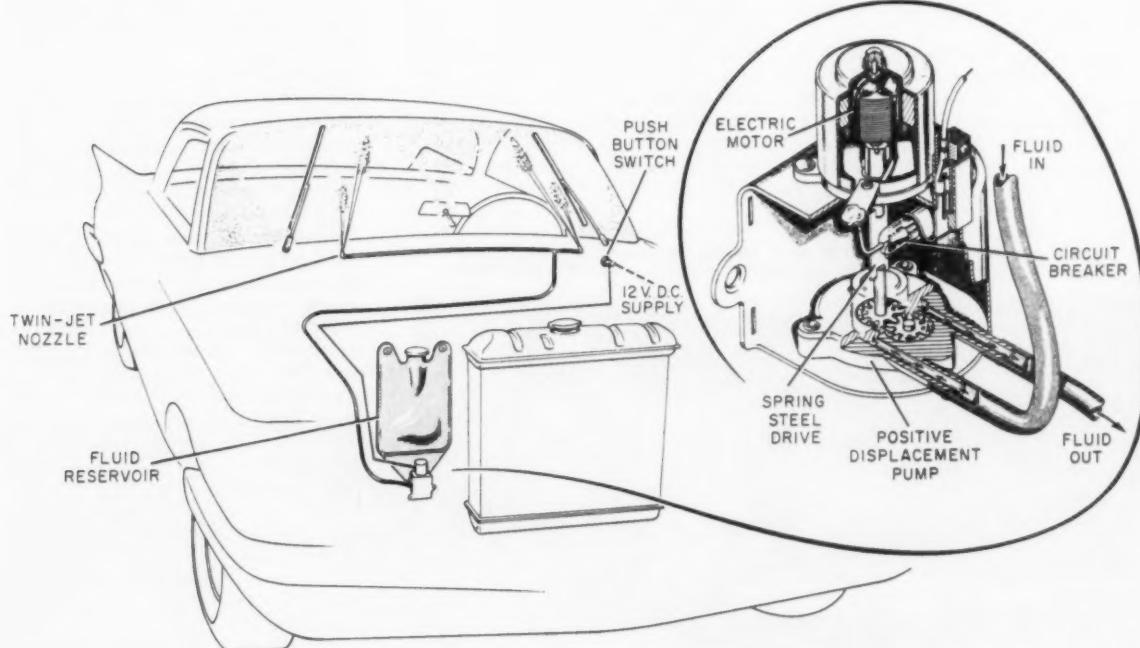
- 1.—Motor does not run.
- 2.—Fluid from only one nozzle.
- 3.—Pump does not operate.
- 4.—Non-uniform spray.

### POSSIBLE CAUSE

- a. Loose wiring connections.
- b. Open in wiring.
- c. Defective switch.
- d. Short in motor.
- e. Poor ground.
- f. Corroded wiring connections.
- a. Nozzle plugged.
- b. Broken or torn hose.
- c. Pinched or kinked hose.
- d. Hose disconnected.
- a. Motor not operating.
- b. Broken coupling.
- c. Objective pump.
- d. Reservoir dry.
- a. Plugged nozzle.
- b. Improperly aligned nozzle.
- c. Pinched or kinked hose.

### CORRECTION

- a. Clean and tighten.
- b. Repair or replace wire.
- c. Replace switch.
- d. Replace assembly.
- e. Clean housing and tighten.
- f. Clean and tighten.
- a. Clean out nozzle with compressed air.
- b. Replace hose.
- c. Replace hose.
- d. Install hose.
- a. Replace unit.
- b. Replace unit.
- c. Replace unit.
- d. Fill reservoir.
- a. Blow out with compressed air.
- b. Air spray nozzle and adjust.
- c. Replace hose or align if possible.



# Ford Boasts 30,000-Mile Chassis Lube



Top: The Starliner is one of the six models in the Galaxie series. Like all '61 Fords, it is nearly four inches shorter and two inches narrower than the '60 models. Above: The Fairlane 500 Tudor sedan is another of the 16 Ford models.



Top: The six station wagons include the nine-passenger Country Squire. A six-passenger version of the Squire is a new model for '61. Bottom: The Sunliner has the same interior room, despite its being narrower and shorter for '61.

THE 1961 Ford features such engineering improvements as a 30,000-mile chassis lubrication, which will result in lower maintenance costs and more carefree operation.

The new Ford, nearly four inches shorter and two inches narrower than in 1960, will offer improvements including:

A new grease and lubrication system that extends the normal chassis lubrication interval to 30,000 miles.

New, heavier brakes that adjust themselves.

Specially processed underbody parts, including galvanized body panels below the doors that resist rust and corrosion.

Aluminized mufflers that are double-wrapped for three times normal life.

A 250% increase in the thickness of anodizing on aluminum surfaces for brighter, longer-lasting grille, headlamp and tail-lamp trim.

These features, combined with Ford's Diamond Lustre finishes that reportedly never need waxing, and the full-flow oil filtering system that permits a 4,000-mile oil change interval, "will mean fewer inconvenient service stops and more savings with the new Fords," engineers said.

The extended lubrication interval is possible through use of new, tough plastic seals and liners plus

a special grease having a molybdenum-disulfide base. Even with this grease purposely wiped off, a tenacious film clings to the surfaces, preventing metal-to-metal contact.

The brakes adjust automatically to compensate for lining wear. The self-adjusting mechanism is actuated when the brakes are applied while backing.

Among improvements in the Ford optional equipment are a power window master control switch which can be used to "lock out" the operation of any or all windows, and improved circuit breaker protection for power seats and windows.

Adding to the convenience of the cars are such features as a wider trunk opening for easier loading and relocation of the spare tire on the "shelf" at the front of the trunk compartment to give more usable space; a foot-operated parking brake with the release knob situated on the instrument panel; two-stage door-checks; reduction of steering effort by 50% with power steering and 10% with manual steering, and a new, flexible coupling in the steering shaft which reduces transmission of road shock.

The Ford line consists of 16 models in four series—Fairlane, Fairlane 500, Galaxie and station wagons. Added to the line are two new models—a Galaxie Club Victoria (two-door hardtop) and a six-pas-

senger Country Squire station wagon.

All six station wagon models, from the two-door Ranch Wagon to the nine-passenger, four-door Country Squire with simulated wood paneling, have a new roll-down rear window in the tailgate. The tailgate itself is seven inches wider than in 1960. The front-facing third seat in nine-passenger station wagons has been improved and, when not in use, folds quickly into the floor.

A power-operated rear window is standard on the Country Squire models and the nine-passenger Country Sedan and optional on others.

Ford introduces a new 390-cubic-inch Thunderbird Special V-8 engine in 1961 that is designed for effortless performance. The Thunderbird 352 Special and the Thunderbird 292 V-8's, as well as the Mileage Maker Six, all are designed to deliver greater economy on regular-grade fuels.

Ford has improved all four transmissions for 1961—the manual, overdrive, two-speed Fordomatic and dual-range Cruise-O-Matic. The Cruise-O-Matic transmission is equipped with a new vacuum control throttle valve linkage which provides smoother, more precise shifting than before, and elimination of periodic adjustment.



This is the compact Valiant V-200 Suburban for 1961.

**V**ALIANT offers a more complete line of body styles in the low-price, compact-car class in anticipation of even greater buyer demand for the more economical American-built cars.

Added are a new low-price two-door sedan and a two-door hardtop, giving Valiant complete representation in the sedan-hardtop-station wagon model group, which comprises 95% of all cars bought from American manufacturers.

The Plymouth name in script now appears at the lower right edge of the deck lid or tailgate of the Valiant.

Most noticeable change from the front is the new grille. Although it retains its characteristic shape, it is bolder and has a more open appearance from a chrome-over-black background treatment. A new grille medallion carries the Valiant triangle in blue and red against a white field textured with fine horizontal lines. The chrome-on-black treatment is carried over to the dual headlamps.

Along the sides, the bright trim is designed to highlight the car's body. Windshields and rear windows have finished moldings of bright metallized plastic. The Valiant name in chrome-finished script appears behind the front wheel opening. Wheel covers are optional.

The V-200 series (the top of the line) has side moldings which dis-

tinguish its models from those in the V-100 series. A slim molding carries the length of the front fender and door sculpturing and includes a distinctive black-and-white medallion. A lower body side molding carries back into the rear fender. A stainless steel drip rail molding is standard on the V-200 series, while the door upper molding and the rear-quarter window molding are optional.

1961 Valiants are offered in eight different colors, six of which are new. The colors are: red, silver metallic, blue metallic, light blue, light green, green metallic, black and white.

All models are powered by a six-cylinder, overhead valve engine with a displacement of 170 cubic inches. Inclined 30° from the vertical to permit use of a unique manifold for maximum fuel economy, the engine retains its horsepower rating of 101. This year the compression ratio has been reduced from 8.5 to 8.2, enabling the engine to handle non-premium fuel in a more efficient manner. The engine reportedly is quieter and smoother and the possibility of detonation from carbon deposits in the combustion chambers is reduced.

Cars equipped with factory undercoating have a new silencing pad of high-quality fiberglass to prevent engine noise from reaching the passenger compartment.

## Valiant Adds Two Bodies

Also, road noise is reduced by a heavier,  $\frac{3}{4}$ " jute pad on the rear floorpan beneath the floor mat or carpet.

Oriflow shock absorbers have been redesigned for quieter operation. The valves now open more smoothly and quietly.

Speed, performance and economy are improved by revised calibration of the choke and carburetor. The carburetor has improvements which were said to virtually eliminate flooding caused by dirt between the needle valve and seat.

The manual transmission shift linkage has been improved to provide a more positive feel of the shift pattern, and the gearshift lever has been made longer and higher for convenience.

Design of the parking brake has been simplified, with the result that pedal effort has been reduced to little more than half of last year's figure.

Valiant offers air conditioning as a dealer-installed option. It is a recirculating-type unit, designed to combine maximum cooling capacity with minimum space requirement at low cost. Two centrifugal blowers force air through the evaporator coils, where it is cooled and dehumidified, and through the distribution grilles into the passenger compartment.

A special engine cooling fan is  
(Continued on page 86)

This V-200 two-door hardtop is a body style new to the line in 1961.





The four-door New Yorker hardtop is powered by a 350hp, 413-cubic-inch engine. Below you see the rear deck lines of the Newport.

## Chrysler Debuts Lower-Priced Newport

THE Newport series, a new line of full-sized Chrysler cars in a lower-price range, was unveiled this month.

Dealers also unveiled the newly-styled 1961 Windsor and New Yorker series models. The Chrysler 300G, America's most powerful car, will be announced later.

The Newport will be powered by a 265hp Firebolt V-8 of 361 cubic inches and 9-to-1 compression ratio. Designed to operate on regular-grade fuel, the Newport engine and automatic transmission in its first economy run reportedly registered 510 miles on a single tankful of fuel—21.7mpg. It was driven by a 17-year-old Detroit student.

A floor-shift, three-speed manual transmission is standard equipment in the Newport and Windsor series.

The new Chrysler models feature canted headlamps, a new ribbed roof for four-door hardtops, single-curvature windshields and lower, more functional tail-lamps.

Alternators replace generators in 1961 models, providing up to eight amperes of electrical power when at idle. The alternator assures adequate electrical generating capacity always—even in the most severe winter traffic stalls. Motorists in smog areas will benefit from Chrysler's new smog-reducing crankcase breather. Pushbutton windshield washers and a safer foot-operated parking brake are new features.

In addition to the 265hp Newport engine, Chrysler offers a 305hp V-8 of 383-cubic-inch displacement and

10.1-to-one compression ratio in Windsor models. Chrysler New Yorker models are powered by a 350hp V-8 of 413-cubic-inch displacement and 10.1-to-1 compression ratio.

Chrysler's new electric pushbutton windshield washer (see page 44) is an entirely new design. It provides the power and dependability of a D-C electric motor, which drives a positive displacement pump to send four high-pressure jets of washer fluid against the windshield when the button is pressed. The washer button is conveniently situated in the center of the windshield wiper switch, giving the driver complete control of the washing and wiping cycle.

The 1961 Chrysler manual transmission, standard on the Newport and Windsor, is a new, Chrysler-produced unit. It features a 2.55:1 low gear ratio, a 1.49:1 second gear and 3.34:1 reverse gear. Gear changing is accomplished through a sports-car-type floor-mounted shift lever. All gears are helical for quiet operation. Second and third gears are synchronized for smooth shifting.

Chrysler offers four-door hardtop station wagons in its Newport and New Yorker series. Both the Newport Town & Country wagon and the New Yorker Town & Country wagon may be obtained with either six- or nine-passenger carrying capacity.





The Lancer's body design is different from its cousin, the Valiant. The Lancer station wagon appears above.

# Dodge and Its Compact Lancer

Below is the Dart and, at bottom, the Polara. Technical details on Dodge products appeared on page 56 of last month's SAJ.



# Corvair Adds Body Styles

CHEVROLET's rear-powered Corvair blossoms out as a full line of automobiles for 1961.

In addition to the three half-ton commercial cars previously announced, the company disclosed that station and sports wagons will join the family.

Here is the Corvair lineup:

Passenger cars—Club coupes, four-door sedans and a new Lakewood station wagon in the "500" and "700" series, plus the de luxe Monza sport coupe and the new Greenbrier sports wagons.

Commercial—Corvan, Rampside and Loadside trucks.

In appearance, the latest Corvair retains its symmetrical form. New styling touches and beautiful interiors distinguish the models as 1961's, but the low-slung profile remains unchanged.

Also untouched are the engineering fundamentals. The flat, air-cooled engine and transmission-axle combination are continued at the rear. Compact body-frame integration lends its staunchness to all models.

To supplement the Corvair features, several improvements have been adopted. Fuel economy reportedly especially benefits from the lower-numerical axle ratio and the new non-gas-burning heater which will improve fuel economy. A hot-air heater is now offered as optional equipment. Increased luggage capacity is made possible by mov-

Nope, the engineers didn't have to wrap the spare tire around the carburetor when they moved the fire from the front trunk compartment aft to be at home with the engine. Engineers said the heat from the engine would not tend to damage the rubber as they said temperatures would not rise that high. Note that battery is at left. See page 11 for details of Corvair's new "perimeter" hot-air heater.



Top: The Greenbrier sports wagon is an addition to the Corvair line. It has a 95" wheelbase with rear-installed engine and independent suspension. Its commercial counterpart is a delivery unit which has been named the Corvan.

Above: The Corvair Lakewood station wagon also has the air-cooled engine in the rear, folding seat and forward luggage compartment. Chevrolet has also added three half-ton trucks to the Corvair line for the new year.

ing the spare tire from under the hood to the engine compartment. A 14-gallon fuel tank is substituted for the former 11-gallon.

The Greenbrier is a totally new forward control vehicle designed on a 95" wheelbase. The normal car hood has been eliminated. A full-width driver's seat mounts over the front wheels. The body will accommodate two additional seats, positioned conventionally or facing each other.

For ready accessibility, the Greenbrier is equipped with six doors—one on each side of the driver's compartment and double doors at the curb-side and at the rear. Side and rear doors open a full 180°.

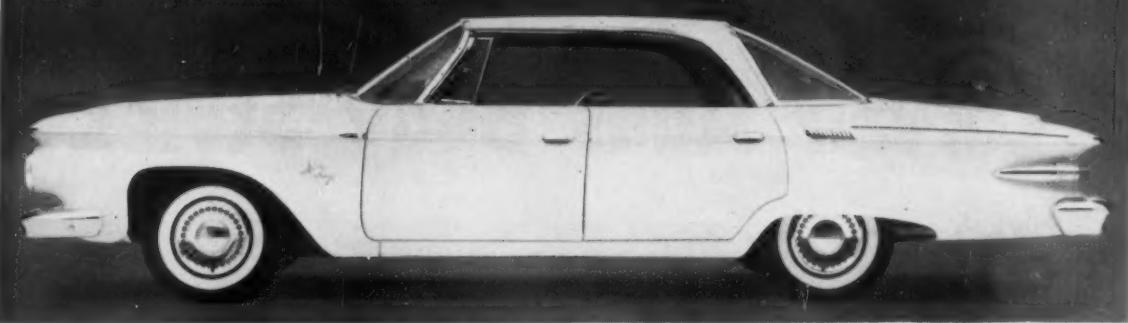
Nominally rated at 1,600-pound capacity, the Greenbrier's easy conversion from a commercial to a pleasure vehicle recommends it to varied utility. As a bus, nine passengers and 250 pounds of luggage or six passengers and 700 pounds of luggage can be transported. With single, three-passenger seat, the cargo accommodation totals 175 cubic feet.

The Lakewood Station Wagon which, like the Greenbrier, houses its six-cylinder engine under the flat luggage compartment floor, is built with the same superstructure that characterizes the larger 1961 Chevrolet station wagons.

The vehicle is approximately two inches higher than Corvair sedans and is equipped with four doors and a folding rear seat. With seat down, the enclosed load can reach nearly 6.5' in length. In total, the body adds 58 cubic feet of cargo capacity to ten cubic feet under hood.

To aid operating economy, a manual choke replaces the former automatic. Recirculation of engine cooling air, more precise fuel metering and a lower rear axle ratio also furthers gas mileage. At the same time, torque has been boosted by increasing engine displacement to 145 cubic inches. Engines of 80 or 98hp in specified models and three- and four-speed manual shifts are available, as well as an automatic transmission.

Listed among the optional items is a "perimeter" hot air heater.



View from the side shows the new lines of the Plymouth. This is the Fury four-door hardtop.

## Plymouth Sheds Its Fins

**P**LIMOUTH has dropped its fins for the new year, favoring a body design smooth and uncluttered.

Designers have reduced the mass of the rear of the car, added to the length of the hood and used a minimum of side trim.

Plymouth offers 26 different models, five engines, four different transmissions, 14 body colors and 30 two-tone body color combinations.

In the Savoy line are two- and four-door sedans with either six-cylinder or V-8 engines; the Belvedere line has two- and four-door sedans and a two-door hardtop, all available with either six or V-8 engines; in the Fury line are a four-door sedan, a two-door hardtop, a four-door hardtop, all available as either a six or V-8, and the convertible, offered only as a V-8.

Nine different Suburban station wagons are offered: a two-door six-passenger car and a four-door six-passenger (six or V-8) in the De Luxe line; a four-door, six-passenger (six or V-8) and a four-door nine-passenger (V-8 only) in the Custom line; and a four-door, six-passenger, and four-door nine-passenger (V-8 only) in the Sport Suburban line.

Features of the 1961 Plymouth include:

1.—An alternator replaces the old-type generator, keeping the battery charging even when the car is idling in traffic with lights, radio and windshield wiper operating. This lengthens battery life and eliminates the "won't start" complaint on cold winter mornings resulting from battery failure.

2.—An improved carburetor needle valve saves gas because it keeps the air-gas mixture from getting too rich. It has an anti-flood feature for easier starting.

3.—A new distributor has a nylon rubbing block at the breaker points which lasts longer and reduces the need for adjustment to maintain fine performance.

4.—Improvements in the steering system make steering easier.

5.—New, quiet-cushioning action built into the shock absorbers makes the ride even quieter.

6.—New longer-lasting tires are squeal-resistant and help eliminate noise by lowering the road hum level. Life of the tread reportedly has been increased by 15%.

7.—The uni-body construction has been further refined through more precise manufacturing methods and is more solid and quiet.

8.—A magnetic drive in the speedometer operates more quietly by eliminating gear noise resulting from metal-to-metal contact.

9.—The starting system has a new solenoid shift which is quieter and longer wearing.

10.—Brakes are more durable and smoother. They use Chrysler Corp.-built Cycleweld linings.

11.—The parking brake is safer, more difficult for children to release accidentally. It requires less pressure for secure holding and is in a location which makes it easier to apply.

12.—Inner construction of seats is stronger, and there is extra cushioning to the center section of the rear seat, for added passenger comfort.

The inclined 30-D Economy six engine has a new anti-percolation feature in the carburetor to insure quicker hot starts. There is a new choke and improved carburetor calibration for better low-speed performance and economy.

There is better carburetion on all V-8 engines, too, saving gas by keeping the air-gas mixture from becoming too rich.

Improved engine breathing has been provided on the 361-cubic-

(Continued on page 88)



# "Luxury Compact" Joins Studebaker

**S**TUDEBAKER is introducing a new "luxury compact" car for 1961—the Lark Cruiser, reportedly designed "for motorists who seek a little more in a sensibly-sized and priced automobile."

The Cruiser is a larger, Regal-styled four-door sedan, powered by a V-8. Its over-all length is 179"—four inches longer than the regular Lark sedans. Its wheelbase of 113" compares with 108.5" on other Lark sedan models.

The Cruiser's larger body provides increased interior dimensions. The rear seat has more legroom and a folding center armrest. Exceptional ease of entry and exit is assured by wide rear doors and a floor which is designed level with the door sills.

European-type pockets are on all four doors. Other distinctive Cruiser features include rear window wing vents and exclusive upholstery trim with a wide choice of harmonizing colors. An electric clock, cigar lighter and coat hooks are standard equipment.

The foam rubber cushioned seats are covered with a new fabric displaying the Lark emblem in its pattern and are topped along the upper back with vinyl trim. Vinyl is also featured in the headlining and door and side panels. The floors, front and rear, are carpeted.

Reclining seats with split backs or individual cushions and backs are available on special order. Head rests are available optionally with reclining seats.

The Lark Cruiser's powerplant is a 259.2-cubic-inch V-8 engine. With standard two-barrel carburetion, the engine develops 180hp at 4,500rpm, with a torque rating of 260 at 2,800rpm. The compression ratio is 8.8 to 1.

For those desiring more power, dual exhausts and four-barrel carburetors are also available. With this equipment, the engine develops 195hp at 4,500rpm with a torque rating of 265 at 3,000rpm.

Also offered in the Cruiser is the 289-cubic-inch V-8, developing 210hp at 4,500rpm, with a torque rating of 300 at 2,800rpm. With four-barrel carburetion, this engine develops 225hp at 4,500rpm, with a

torque rating of 305 at 3,000rpm.

Seventeen Lark models—including the Cruiser—are offered for 1961. In addition, there's the Hawk, a family sports car.

All Lark models are available with either the new, more powerful six-cylinder OHV engine—the Skybolt Six—or the V-8 powerplant.

For the first time in the automobile industry, Studebaker offers padded instrument panels as standard on all models.

The Hawk, as a Regal-styled sport coupe, has bucket seats as standard equipment, a new feature for 1961. A four-speed transmission, tachometer, deck-lid-mounted antenna and auxiliary heater are offered as optional equipment.

All 1961 Larks can be equipped with a Flightomatic, overdrive, or conventional transmission. A wide

choice of rear axle ratios provides top performance in any type of terrain.

The Skybolt Six develops 112hp at 4,500rpm, with a torque rating of 154 at 2,000rpm. The compression ratio is 8.5 to 1.

The engine has been designed to produce maximum power for its size without the addition of unnecessary weight. This has been accomplished by placing larger valves in a staggered arrangement and increasing the air intake.

A new design ram-type intake manifold with larger passages in the head and carburetor throat permit a greater air flow through the engine's breathing system.

Details of the new six-cylinder engine were carried on page 51 of last month's SOUTHERN AUTOMOTIVE JOURNAL.

Below: The Lark Cruiser is Studebaker's new larger luxury-styled four-door sedan for 1961. It has a 113" wheelbase and an over-all length of 179" and is powered by a 259-cubic-inch V-8, with a 289-cubic inch V-8 optional.

Bottom: Decorative louvers in the upper rear-quarter sections are a new styling feature of the Lark hardtops. Single pivots for raising and lowering the quarter windows reportedly improve operation and eliminate rattle.



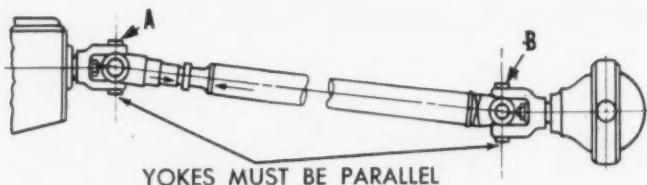


Fig. 1—Yoke alignment—one-piece shaft (typical).

## Servicing Propeller Shaft and Universal Joint

QUITE often the shop is called upon to have someone road-test a job to determine what is causing a vibration or shudder at certain speeds.

If the wheels and tires are in good condition, the cause is usually worn U joints or incorrect drive line angle.

Recently our shop experienced such a problem. There were several thousand miles registered on the speedometer and the owner had complained about the vibration ever since the vehicle was put in service. The final result of correcting the condition was the rear engine support was lowered  $1\frac{1}{2}$ " in order to correct the drive line angle.

Various types of U joints are used, all of which cause speed fluctuations in the propeller shaft. The amount of fluctuation depends upon the degree of angle between the driving and driven shafts.

When two U joints are used, one at either end of the prop. shaft, the

second is used to compensate for fluctuation by the other. In order to accomplish this, the U joint yokes and prop. shaft must be in correct alignment (Figs. 1 and 2).

Following are some prop. shaft and U joint troubles and remedies:

Excessive vibration:

- Improper drive line angles.
- Worn universal joint.
- Bent propeller shaft.
- Universal joint yoke bearings worn.
- Runout of pinion flange.

Probable remedy:

- Adjust drive line angles.
- Replace worn parts.
- Replace bent shaft.
- Replace worn parts.
- Relocate or replace.

Excessive backlash:

- Worn universal joints.
- Worn drive shaft or joint splines.

Probable remedy:

- Replace worn parts.
- Replace worn parts.

Note: Excessive backlash is usually a fault of the rear axle assembly and very seldom a result of U joint or splines.

Prop. shaft vibration frequency is much higher than wheel, tire or brake drum vibration.

Major service on the current-model Chevrolet prop. shaft and U joints:

Propeller shafts:

Removal:

Remove two bolts attaching center bearing support to frame X member (Fig. 3).

Split the rear universal joint by removing trunnion bearing U clamps. Tape bearings to keep them from becoming damaged.

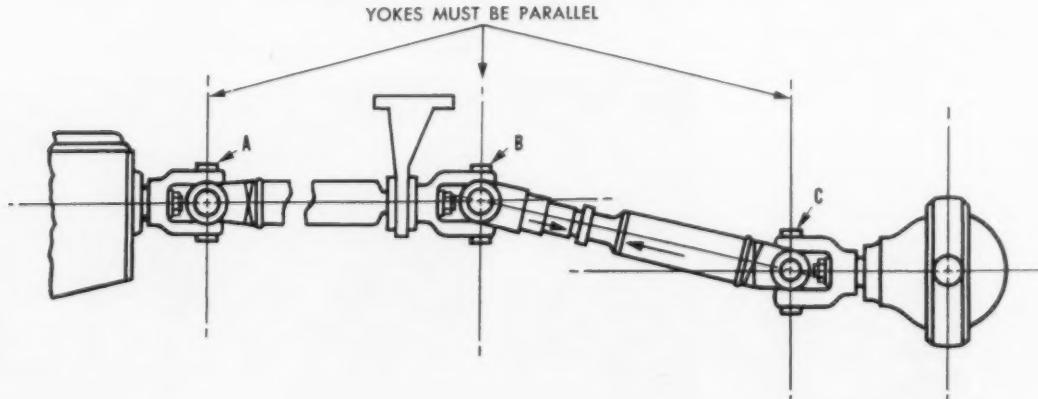
Withdraw the propeller shaft and bearing assembly by moving it rearward and to the left, passing under the axle housing assembly (Fig. 4).

Repairs:

Universal joints:

Remove bearing lock ring from yoke.

Fig. 2—Yoke alignment—two-piece shaft (typical).





Above: Fig. 3—Removing center bearing support attaching bolts.

Right: Fig. 4—Removing propeller shaft.



Support shaft yoke in a bench vise or on a short length of  $1\frac{1}{4}$ " pipe.

Using a soft drift and hammer, drive on one end of trunnion bearing just far enough to drive opposite bearing from yoke (Fig. 5).

Support the other side of yoke in bench vise and drive other bearing out, using brass drift on end of trunnion hub.

On other joints, remove trunnions from yokes in a similar manner.

#### Remove trunnion.

Clean and inspect bearings. Relubricate with a high-melting-point wheel-bearing-type grease.

Replace trunnion and press new or relubricated bearings into yokes and over trunnion hubs far enough to install lock rings.

Hold trunnion in one hand and tap yoke lightly to seat bearings against lock rings.

Center bearing and support assembly:

Remove bolt attaching center universal joint yoke to front propeller shaft.

Remove flat washer from front propeller shaft.

Using a suitable tool to press on inner race of bearing, press off bearing and support assembly from front propeller shaft. Remove remaining flat washer from propeller shaft.

Inspect condition of flat washers and bearing and support, replacing if necessary.

Install flat washer on rear end of front propeller shaft.

Set center bearing and support assembly on end of shaft, and by pressing on inner race of bearing, press on until bearing bottoms on machined step of propeller shaft.

Install remaining flat washer. Install front yoke of center universal joint with one attaching bolt.

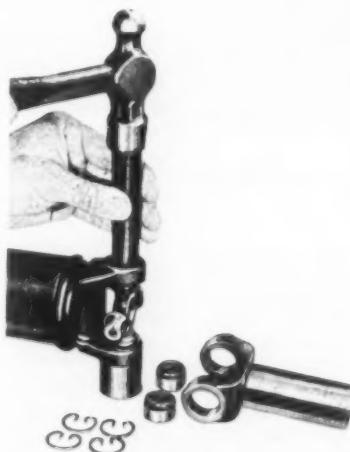


Fig. 5—Disassembling universal joint.

**Note:** Care must be exercised so that the phasing of the yokes of the front shaft is  $90^\circ$ .

Install center universal joint as outlined above.

**Note:** Depending on transmission used, three front propeller shafts are used. They are color coded as follows:

Overdrive—blue.

Turboglide and three-speed—white.

Powerglide—orange.

#### Installation:

Ascertain the condition of the slip joint seal in the transmission. Replace if necessary.

Insert the propeller shaft and bearing assembly through the frame X member.

Slip the front joint yoke over the transmission output shaft.

Connect the rear universal joint by installing the two U bolts. Be sure the trunnions are properly seated in the rear axle drive flange. Torque should be 14-18 ft.lbs.

With the car setting at curb height, the center bearing mounting should be allowed to fall freely into place over the slotted holes in frame X member and then forced forward approximately  $\frac{1}{8}$ " and should then be tightened at this position. In the case of the air-suspension-equipped units which always set at design height (air spring bellows full of air), the center mounting should be forced forward approximately  $\frac{3}{8}$ " from its free position before being bolted tight.

**Caution:** Care must be exercised so that the rubber mounting is securely in place in the outer ring assembly when the assembly is bolted to the frame.

Major service on the current-model Dart and Plymouth prop. shafts and U joints:

#### Description and operation:

The propeller shaft has a ball-and-trunnion-type universal joint at its forward end (Fig. 6) and a cross-and-roller-type universal joint at the rear (Fig. 7).

When the vehicle is in motion, the propeller shaft is free to slide

## November: Servicing Heaters

**Heater service is beginning to knock at your door. That's why Ed Lowery will cover next month some details on servicing the various kinds you meet.**

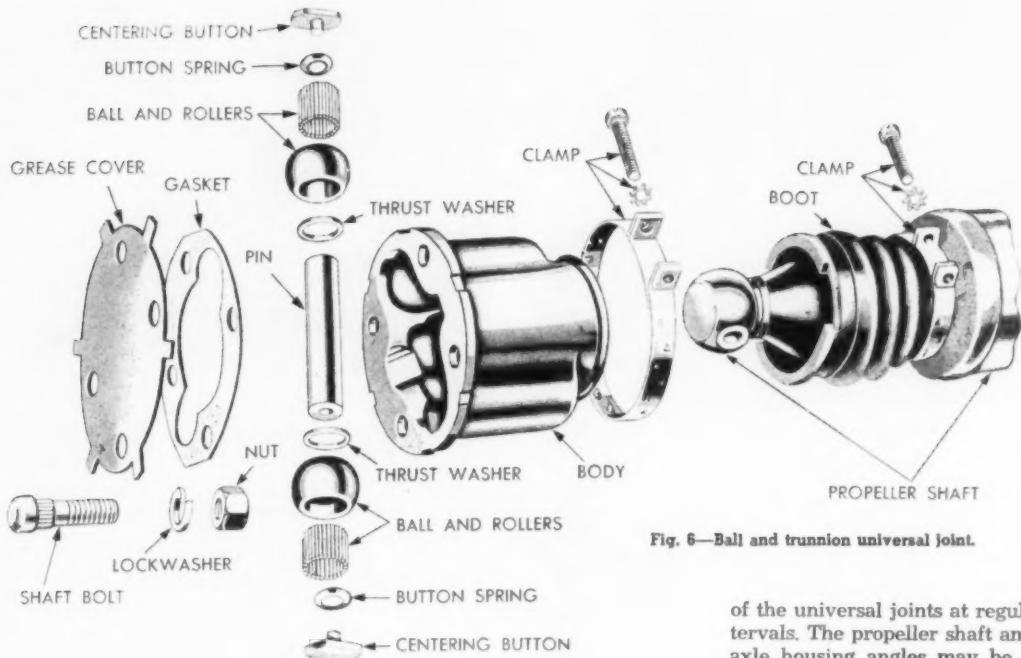


Fig. 6—Ball and trunnion universal joint.

fore and aft inside the front universal joint body. All working parts are sealed against road splash, dust, mud and water. The front joint is equipped with a polished jute breather. The breather lengthens the life of the boot by decreasing the flexing action due to variations of air pressure within the assembly as the shaft moves back and forth

in the joint body.

All lubrication and maintenance operations require removal and disassembly to the extent that all parts can be cleaned and inspected.

#### Drive line angularity:

The quiet, smooth operation of the propeller shaft and universal joints depends upon proper alignment, together with the lubrication

of the universal joints at regular intervals. The propeller shaft and rear axle housing angles may be measured by using a level protractor with the vehicle in a relatively level position with no additional weight in car, above the weight of a full tank of gasoline.

1.—Use of drive on hoist, pit, wheel or frame alignment rack. (Vehicle weight must be on all wheels.)

2.—Remove the rebound plate and bumper from top of the differential carrier housing.

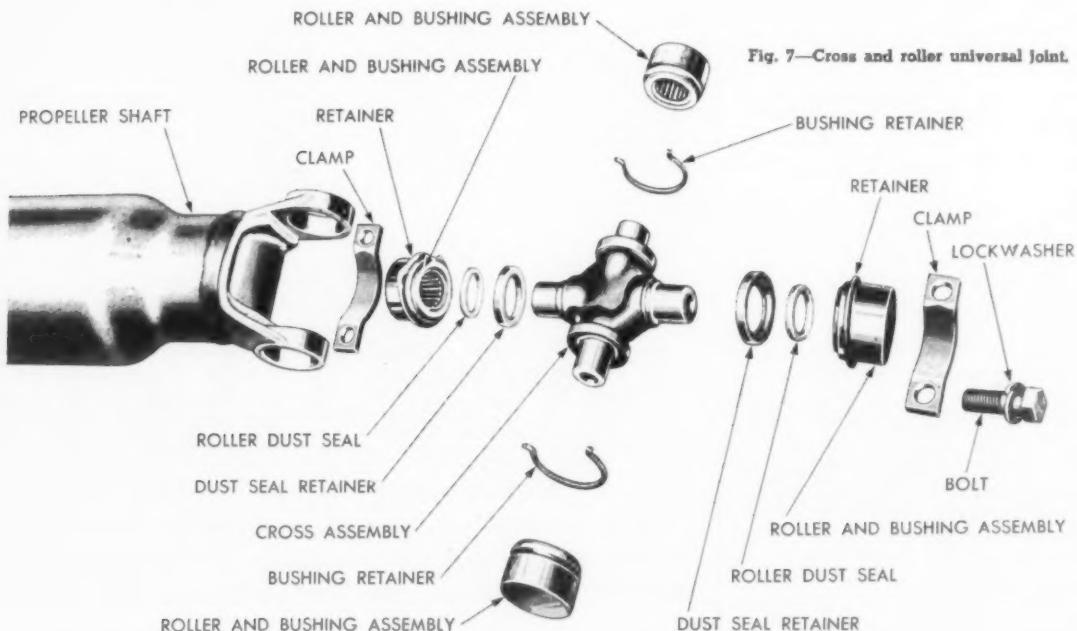


Fig. 7—Cross and roller universal joint.

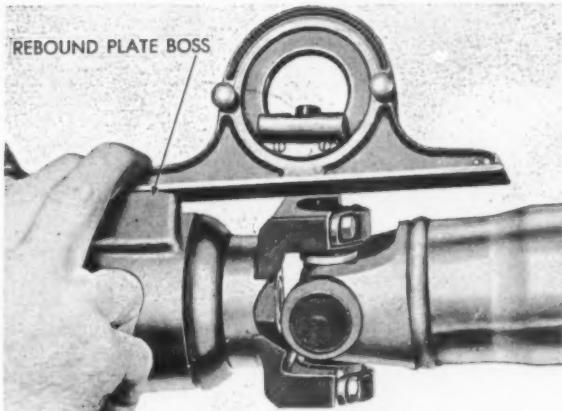


Fig. 8—Checking rear axle angularity.

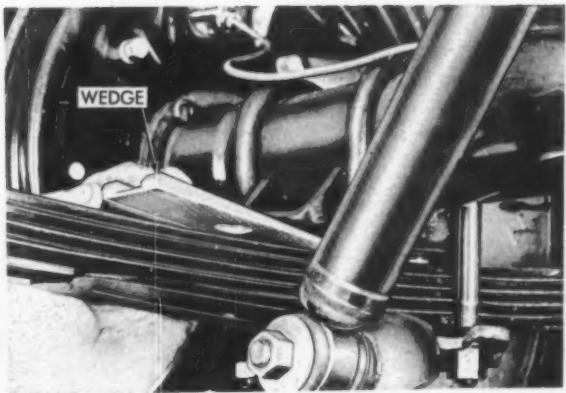


Fig. 9—Installing tapered wedges.

3.—Place the protractor on the machined surfaces of the rebound plate bosses (Fig. 8).

4.—Level the bubble and record the reading of angularity. With the car level, the differential carrier housing should incline down slightly. If the housing is level or elevated, add tapered shims between the rear springs and the differential housing spring plates to obtain a slight downward angle (Fig. 9). Recheck angularity.

5.—Place the protractor on the underside of the propeller shaft and record the angularity (Fig. 10).

6.—Add the readings of the carrier housing and the propeller shaft. They should total approximately  $2^{\circ}$ . Adjust to this total by adding or subtracting various thickness shims (Fig. 9).

7.—Install rebound plate and bumper assembly on carrier. Tighten to 200 inch pounds.

8.—Tighten the rear spring U bolt nuts to 70 foot pounds.

#### Propeller shaft:

##### Removal:

1.—Remove both universal roller and bushing assembly clamps from pinion yoke. (Do not disturb retaining strap used to hold roller as-

semblies on universal joint cross.)

2.—Disconnect the front universal joint from the transmission flange and brake drum assembly and remove propeller shaft from car.

##### Installation:

1.—Attach front universal joint to transmission and brake drum assembly. Tighten attaching nuts to 35 foot pounds.

2.—Install rear universal cross rollers into seats of pinion yoke.

3.—Install roller clamps and attaching bolts. Tighten attaching bolts to 170 inch pounds torque. Do not over-torque.

4.—Install thrust washer, rollers, ball, button spring and thrust button on each end of the trunnion pin and position the body over the pin assembly.

5.—Position the boot on the propeller shaft, with the breather (polished jute) parallel to the shaft. Install and tighten clamp.

6.—Position the boot on joint

body and install clamp.

7.—Lubricate the universal joint with two ounces of fibrous universal joint lubricant applied evenly in both raceways, one-half back of the trunnion pin and one-half between the pin and cover.

*Note:* Two ounces of universal joint lubricant would be about  $\frac{1}{4}$ " deep if placed on the universal joint grease cover. Do not use more than the specified amount.

8.—Position cover on body with tabs at grooves in body. Bend tabs to tighten in place.

#### Ball and trunnion universal joint:

##### Disassembly:

1.—Straighten tabs and remove grease cover and gasket.

2.—Push the body back and remove parts from both ends of the trunnion pin.

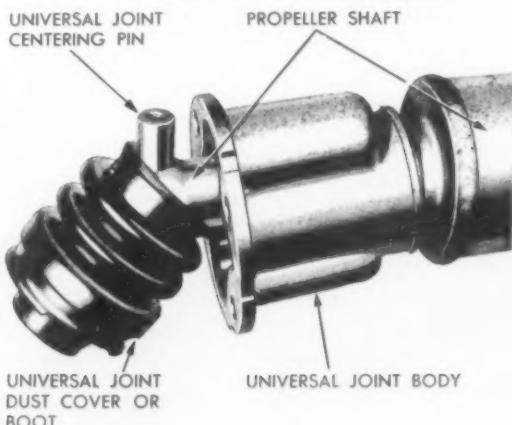
3.—Remove clamps and loosen the dust cover. Remove and save breather (polished jute) situated

(Continued on page 91)

Fig. 10—Checking propeller shaft angularity.



Fig. 11—Sliding cover over ballhead and pin.



# Where Good Tune-Ups Begin

By E. S. HARRIS

AT ONE time or another every tune-up mechanic has asked himself, "Where is the starting point and where is the stopping point in a fall tune-up job?"

And well he might, for there seems to be no end to the customer's expectations when he has laid out a few bucks for a beginning-of-winter tune-up.

Whether the tune-up man is a specialist in a department of a large shop answerable to supervisory people within the department, or an independent answerable to the customer personally, each feels his responsibility is often stretched beyond all reason. One mechanic remarked that he sometimes feels like a hat-blocker catching complaints because the customer's rubber heels were running down.

The bright spot in the picture is, of course, the fact that the necessary "extras" are profitable sales when discovered during the tune-up and sold to the customer.

While acknowledging that there are a lot of unreasonable fringe operations to the pre-winter tune-up, it is a fact that the fall tune-up is a much more exacting job and has more possibilities of kicking back on the mechanic than

Fig. 2—Automatic starter switch must be adjusted to throttle motion to assure a good cold start.

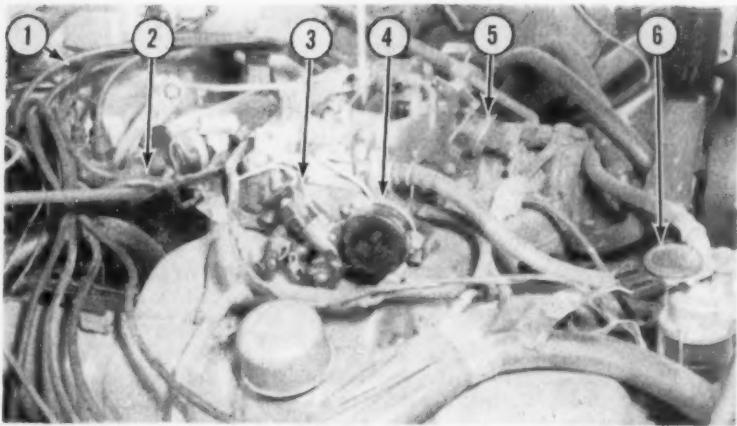


Fig. 1.—They're part of the good tune-up: 1—spark plug cables, 2—ignition primary cables, 3—starter switch, 4—automatic choke, 5—throttle dashpot and 6—vacuum switch.

tune-ups preceding warm-weather operation.

The very fact that adjustments are made when the weather is still mild in anticipation of a much colder operation is a path full of pitfalls in itself. As every mechanic knows, many cars are very "cranky" about their cold-starting mixture and every bit as cranky about their warm-starting feeding, a situation that is enough to bring down a storm of protest around the mechanic's ears if a customer has a stall after a tune-up when he had no such trouble before the tune-up.

In some makes and models where this adjustment sensitivity is particularly prevalent, there is no balm other than advising the customer in advance that he must call back for further adjustment when the cold winds blow. For a rich kick-off in warm weather will certainly leave him sitting for 30 minutes or so waiting for his manifold to dry out, while a lean choke adjustment will not start the engine at all, come cold-weather.

Particularly since the advent of the 12-volt battery, a careless mechanic may get off scott-free if his spring tune-up overlooked an ailing cell or two. This same oversight in a fall tune-up will hang him, for a cold weather engine start doesn't overlook a weak cell. Full voltage must be on the line. This same demand precludes any short-cutting of cable and terminal inspections and voltage drop checks.

In other words, you have to do about everything you are supposed to do, or face the consequences.

Since all electrical tests—as well as satisfactory engine starting — hinge on the condition of the battery, this is about the first bit of tune-up information the mechanic requires. Starting with a visual appraisal of the battery condition which may indicate possibility of lost electrolyte, corrosion-w e a k e n e d cables, loose posts and other trouble sources, he then makes a hydrometer test to see that he has at least a 1.225 specific gravity reading, and if not, gives a thought to what conditions may be causing a low battery condition.

Making use of the battery-starter tester to make a battery capacity test is the next step. Load the battery slowly until the test ammeter reads three times the ampere-hour capacity of the battery, and hold the specific load for 15 seconds. A 12-volt battery having a 70-ampere-hour rating should be  $3 \times 70$ , or 210 amps. A six-volt battery having a 115-ampere-hour rating would be  $3 \times 115$ , or 345 amps.

Check the voltmeter reading at these values and judge the condition according to the following:

A 12-volt battery is good at 9.6 volts plus and unsatisfactory at any point under 9.6. A six-volt battery is good at 4.8 volts plus and unsatisfactory at any point below 4.8 volts.

With a cold winter ahead it doesn't pay to gamble on the battery below the minus tolerance, even

# -and End

though it might limp along all summer, after the spring tune-up.

The fall checkup is a good time to make certain that the generator and regulator aren't just fooling around; turning in enough current for the longer summer runs isn't anything like the job with the usually shorter runs and greater starting demands common in cold weather.

Assuring the customer he has a good battery isn't going to make him love you any more when the "good" battery is flat because of insufficient charging current. Tossing in a generator inspection and voltage regulator test is a must at this time. And since the rather wide use of the red indicator light instead of the ammeter on modern cars, both the mechanic and the owner may be surprised at the revealed generator output and be thankful that the old A-V-R was brought into play to make the check.

Most mechanics will admit that the electrical check they most often "forget" is the starter itself. And while this oversight is the least likely to backfire in late-vintage cars, it can happen just often enough to give the shop a black eye. So it is certainly better shop practice to remember not to "forget" the amperage draw test of the starter system on every tune-up, particularly the pre-winter job.

Strangely enough, a starter that turns too slowly to properly kick off the engine start isn't always drawing too much current: It may be drawing too little. This may be the result of poor internal connections, poor brush contact, dirty commutator, etc.

And any way that you look at it this can be as serious as a starter that is drawing too much current because of a grounded field coil, dragging armature, bent shaft, or what-have-you. The problem, then, is to make certain the amperage draw is within limits.

An amperage draw of between 160 and 200 amperes for a 12-volt system and between 175 and 225 amperes for a six-volt system is a fair average, and it would indicate an inspection of the starter motor if the reading is above or below those values.

A lazy starter may not seem to be part of an engine tune-up, but



Fig. 3—Courtesy check of the heat indicator vacuum switch only takes a few seconds.

just try to sell a stalled customer on that premise after he's paid for a tune-up!

Ever since the electric starter took over the handcrank job, people have been reminded that you don't get something for nothing. It's amazing that such a small motor can do such a big cranking job, but it exacts its price in electrical power, so it is important to know that the turning starter is leaving enough current for the ignition system to fire up the mixture, even though it may be spinning the flywheel at a respectable speed.

It is obvious, then, that battery, charging and starting systems have to be in good condition and properly

balanced between themselves before the actual engine tune-up can be considered.

Automatic starter controls must be in proper adjustment in relation to throttle opening and choke plate position if a quick start is to be accomplished. On the Buick engine, for instance, the carburetor-mounted starter switch (Fig. 2) must be adjusted according to specs, since the throttle will not be opened sufficiently when contact is made in the starter circuit, and therefore it would not produce a good "cold" start if the starter circuit is closed too early. When the adjustment is too late, a gear clash may result.

In fact, several of the individual

Fig. 4—The new heat control valve on the Corvair requires a "winter" adjustment.



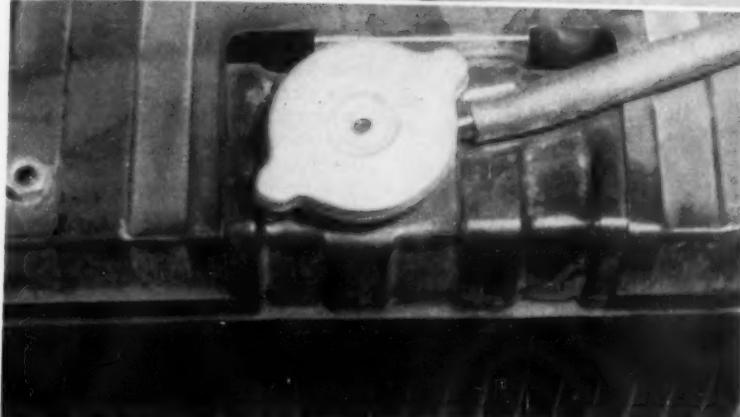
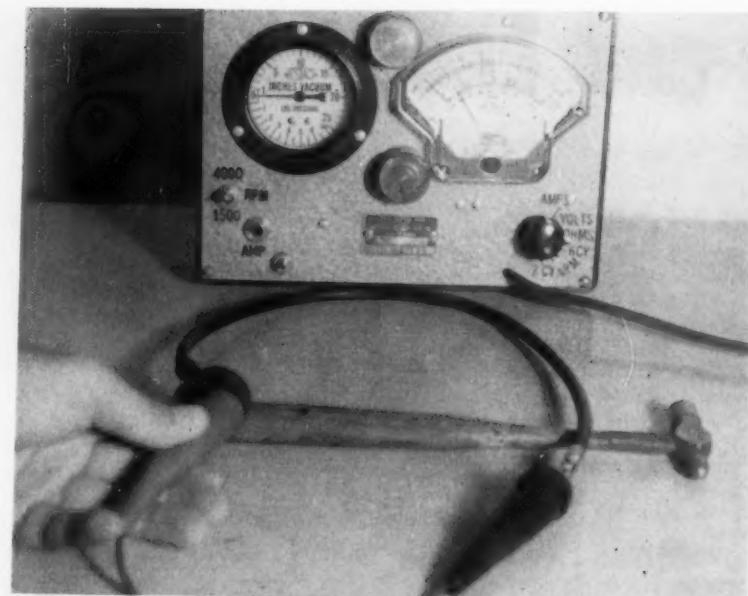
cars and families of cars have unusual or characteristic devices which may trick the mechanic not accustomed to their function. While we are still under the hood of the 1960 Buick for a tune-up, let's not be tricked by the little electrical device (Fig. 3) attached to the fuel pump, and do as other mechanics have done, and try to include it in the tune-up.

This temperature vacuum switch controls a test circuit that checks out the "hot" engine temperature indicator light bulb in the instrument panel before each engine start. The switch simply connects the "hot" temperature indicator lamp to the oil pressure indicator lamp circuit when the ignition switch is "on," and before the engine is started. The oil pressure indicator circuit is energized to light the oil pressure lamp indicating no pressure, so the temperature "hot" lamp is also lit.

As soon as the engine is started, vacuum opens the circuit at the temperature vacuum switch, and the "hot" temperature indicator is moved out of the oil indicator circuit and is controlled by the temperature switch. If the "hot" indicator lamp fails to glow when the ignition switch is turned "on," then the bulb may be burned out. This is the purpose of the temperature vacuum switch and this test circuit. A courtesy check is all that is required.

More than anyone else, the tune-up mechanic must also keep alert to the modifications made to engines during a model run. An engineering change during the year may correct a problem that would otherwise cause a complaint from the customer. But the mechanic must first

**Fig. 5—Don't try to adjust the carburetor idle if this hose is off its nipple.**



**Top: Fig. 6—Always check the resistance of a suspected resistance-type cable.  
Above: Fig. 7—A cooling system check beginning at the radiator cap is part of a good winter tune-up.**

know the new adjustment steps, if any, for the modification, if the improvement is to get his fat out of the fire.

The Corvair modification in its carburetor intake arrangement to allow for a warm-air inlet to prevent carburetor icing and improve cold-weather operation serves as an example. The modification includes a curved wire lever that might be mistaken for a new-type hose clamp, if noticed at all, but to the initiated it is known to operate a heat control valve which is to be placed in the summer position for temperatures above 70° F (outside loop, nearest end of wire, over the hose) and in the winter position for temperatures below 50° F. (See Fig. 4.)

And, while we are under this Corvair engine hood, take a gander at

the hose tapping the vacuum balance tube about midway between the carburetors. If this hose (Fig. 5) is off the nipple, you'll have about as much luck making an idle adjustment to the carburetors as if a wiper hose is off a manifold nipple in a conventional vacuum-wiper arrangement.

While speaking of manifold heat control mechanisms, by all means include an inspection of this device on any engine at tune-up time. When they stick in either the open or closed position they produce operating troubles that are difficult to identify when the customer comes back complaining.

Three other units of relatively simple construction, which must be operating properly if the engine is  
(Continued on page 94)

# Olds F-85 Sports Aluminum Engine

THE Oldsmobile F-85—a six-passenger car "combining high performance and economy of operation"—is being offered in two body styles, a four-door sedan and a four-door station wagon, with deluxe versions of each.

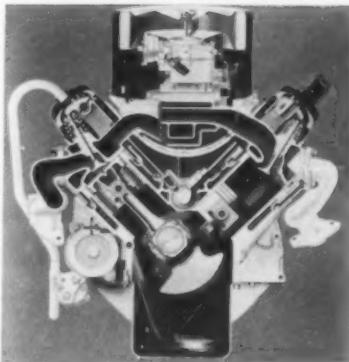
The new, smaller Oldsmobile is 188.2" long over-all. Built on a 112" wheelbase, it is 71.6" wide and 52.6" high. Not only does it seat six people but it also offers 12.1 cubic feet of luggage space.

The car's curb weight is 2,695 pounds, some 1,500 pounds less than its full-size brother, the Dynamic 88.

Water-cooled 215-cubic-inch powerplant with dual-throat carburetor and a compression ratio of 8.75 to 1, the Rockette is designed to operate efficiently on regular-grade gasoline. Rated at 155hp, the aluminum engine has one of the highest power-to-weight ratios in the industry. Another important part of the F-85's power train is a completely new lightweight Hydra-Matic transmission, featuring smooth Accel-A-Rotor action.

Offered as optional equipment at extra cost, the new automatic unit is a smaller and lighter Hydra-Matic designed on the same principles as the newly-engineered larger Hydra-Matic used on other 1961 Oldsmobiles. The F-85's unit is scaled to handle the torque characteristics of the Rockette engine.

The Accel-A-Rotor is a fluid torque multiplier operating as first gear. It reportedly gives the car smooth and lively getaway performance, blending into normal



This new aluminum Rockette V-8 powers the F-85. The water-cooled engine has a displacement of 215 cubic inches (bore and stroke of 3.5" x 2.8") and a compression ratio of 8.75 to 1 for efficient operation on regular-grade gasoline. With a maximum brake horsepower rating of 155 @ 4,800rpm, and basic engine weight of approximately 350 pounds, the engine has one of the highest power-to-weight ratios in the industry.

Hydra-Matic operation as it gains momentum.

The F-85's frame-integral body construction was said to give it the lightest weight, yet strongest structure for this size car and also makes the most efficient use of interior space. Front and rear leg room and seat widths are designed for six passengers. While relatively high seat heights are provided for maximum comfort and vision, the F-85 has ample headroom and large doorways for easier entry and exit, engineers said.

The car's 16-gallon fuel tank is

horizontally mounted and filled from the left rear fender in both sedan and station wagon models.

The Oldsmobile F-85 station wagons are six-passenger models with 73.5 cubic feet of cargo space. Cargo loading and unloading are simple and convenient. The one-piece Easi-Load lift gate, hinged to the roof, lifts above head height so that a person can reach directly into the cargo compartment without leaning over an extended tailgate.

The F-85 and F-85 De Luxe are available in a range of 15 exterior Magic-Mirror colors, including nine metallic finishes. Two-tone exteriors are offered at extra cost.

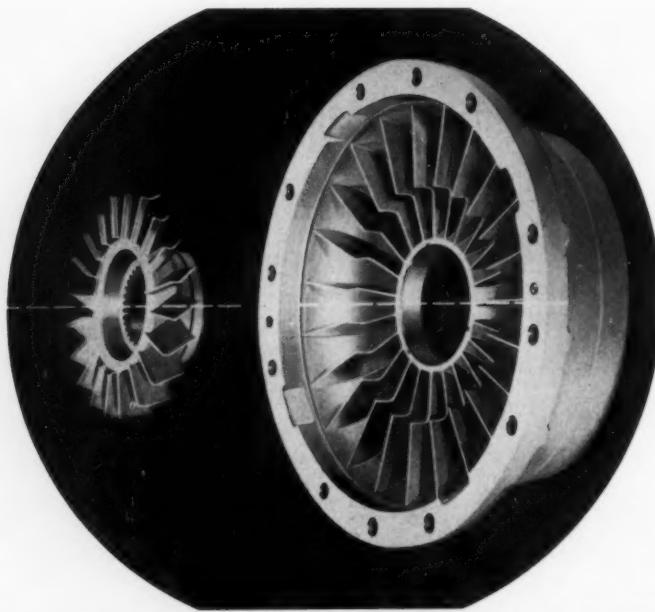
Smoothness and quietness of the F-85 were said to be due in large part to extensive use of rubber mountings in assembling its chassis' components to the body. Road shock, noise and harshness are damped out. The complete front suspension—a new coil spring, ball joint anti-dive design—is mounted to a separate front cross-member, insulated by rubber mountings.

At the rear is a "twin triangle" stabilized coil suspension system which reportedly "assures excellent stability and handling on the road." Two rubber-mounted links on each side connect the axle and the differential to the body side rail structure. The outer links transmit driving and braking forces while the inner links eliminate side sway.

The F-85 is produced at the main Oldsmobile plant in Lansing, Mich., and at the General Motors B-O-P plant at South Gate (Los Angeles), Calif.

Built on a 112" wheelbase, the F-85 is 188.2" long. This is the De Luxe sedan.





The new, lightweight Hydra-Matic features the Accel-A-Rotor, or fluid torque multiplier (far left), shown with the driven coupling of the newly-designed automatic transmission. The same basic design is used for the new transmission offered on the Oldsmobile F-85 and for the larger Hydra-Matic used on the 1961 Oldsmobile 98, Super 88 and Dynamic 88. The F-85's Hydra-Matic transmission is scaled down to handle the torque requirements of the smaller car's engine.

## Olds Improves Hydra-Matic

New torque-box reinforcements brace the four corners of the frame's central section on the '61 models instead of X-members previously used. At bottom is the Super 88 Holiday sedan. Over-all length of the 88's has been reduced 5.6".



A NEW Hydra-Matic transmission featuring an Accel-A-Rotor, a fluid torque multiplier that operates as first gear, appears in Oldsmobiles for 1961.

Engineers claim that Accel-A-Rotor gives the car "smooth and lively getaway performance and blends into normal Hydra-Matic operation as it gains momentum."

Compared with 1960 models, Classic 98's, Super 88's and Dynamic 88's are from 3½" to 5½" shorter over-all. The cars are 3½" narrower. Wheelbase is unchanged at 123", while weight is reduced 140 pounds—the first reduction in weight in the full-size cars in many years.

Elimination of the windshield pillar offset along with higher door openings greatly improves entrance room, officials stated. The front floor is lower, providing more comfortable chair height seats. The front floor tunnel is reduced another 25%, making it almost 50% smaller than the 1959 tunnel.

The 325hp "Skyrocket" engine for the Super 88's and 98's has an improved induction system including a new camshaft design. Its compression ratio is increased to 10 to 1 to take full advantage of the premium fuels now available.

The "Skyrocket" engine with four-barrel carburetor and 394-cubic-inch displacement is also available on Dynamic 88 models at extra cost.

Displacement of the 250hp Rocket engine—standard on the Dynamic 88—has been increased from 371 cubic inches to 394 cubic inches for additional performance. This engine uses the two-barrel Econ-O-Way carburetor and operates on lower-cost regular-grade gasoline.

Engine quietness and durability have been improved on both engines by lengthening the crankshaft front main bearing and bearing journal by  $\frac{1}{4}$ " to provide better crankshaft support.

The Accel-A-Rotor action permits the transmission to be 70 pounds lighter, and slimmer than the Hydra-Matic transmission used on 1960 models. This also made possible the smaller floor tunnel.

A new Guard-Beam frame design uses torque-box reinforcements to brace the four corners of the frame's central section, extending box section ruggedness both laterally and longitudinally. With this design the passengers are cradled within the frame side rails.

Another Oldsmobile "first" for 1961 is a vertically mounted fuel tank with 20-gallon capacity.

# Chevy Shrinks Slightly

THE 1961 Chevrolets are  $1\frac{1}{2}$ " shorter, 2.4" narrower and slightly lower.

Even with this more compact package size, interior dimensions generally are maintained at the 1960 level. Interior width is reduced about two inches, but other variations amount to less than an inch in most cases, with gains outweighing any losses. Addition of well depressions in the front compartment increases chair height for a more comfortable seating position.

Also contributing to passenger comfort, the driveline tunnel in the rear compartment is narrower, increasing foot room.

Entry into the vehicle is easier with the "dog leg" of recent years eliminated and new doorway dimensions. An advantage is realized front and rear, over 1960 models, in entrance height, door width and step height. Foot clearance in the critical rear seat area is up about  $2\frac{1}{2}$ " with only a slight sacrifice in



Top: These gentle curves identify the '61 Chevrolets for you.  
Above: With trunk deck lifted, extra luggage space afforded by the new well is shown. Spare tire has been repositioned. Arrow points to protected area where the fuel tank has been located.

The '61 Corvette maintains a strong family resemblance even with the new lattice-type grille in front and the continental treatment in the rear half. Rear fenders are more pronounced, while the fiberglass body surfaces have a new sculptured effect above the modified bumpers. Reduction in transmission tunnel width, improved body insulation and radiator cooling are among the mechanical advances.



front compartment foot room.

Station wagon tailgate openings are up to 9.5" wider and almost four inches higher. Further facilitating cargo handling, load height is reduced.

Relocation of spare tire and fuel tank makes possible the more functional luggage compartment configuration which literally places luggage space at your fingertips. With total capacity approximately the same as in 1960, 15% more space is reached in 28% less fore and aft distance. The body sill is flush with the bumper, lowering loading height up to 10.5". Compartment height is increased nearly 15% over an area of about eight square feet.

A neat trunk appearance is achieved by spraying virtually the  
(Continued on page 96)



# Falcon Preserves '60 Styling

THE Ford Falcon, most successful new car in history, introduces a new 101hp performance option—

the Falcon 170 Special engine.

"In its first year, the Falcon established itself as the standard of

The 1961 Falcon (tudor sedan below) features a new, convex-shaped aluminum grille and introduces an optional, 101hp engine along with durability improvements in aluminum surfaces, underbody parts and other trim items. The Falcon, most successful new car in history, delivers up to 30mpg on regular-grade gasoline. The Fordor station wagon (bottom) features the convenient roll-down tailgate window and a 76.2-cubic-foot load space, comparable to that of the 1957 Ford. The 1961 Falcon will be offered in four models—two- and four-door sedans and two- and four-door station wagons.

American compact cars," James O. Wright, Ford Motor Co. vice president and Ford Division general manager, said. "No other car ever achieved the first-year success to equal the Falcon's sales of nearly a half million since it was introduced in October 1959."

The 1961 Falcon has a new, convex-shaped aluminum grille, but preserves the styling and inside-outside dimensions of its predecessor.

"That means the Falcon will continue to offer full six-passenger seating room, the feel and maneuverability of a sports car and a 23.7-cubic-foot trunk to carry luggage in real vacation quantities," Wright said.

Among the 1961 improvements are 2½-times thicker anodizing on the aluminum surfaces, double-wrapping of the aluminized muffler, galvanizing of additional underbody parts for greater rust and corrosion protection, and more effective use of stainless steel for parts such as the new hub caps.

The 1961 Falcon will be offered in four models—two- and four-door sedans and two- and four-door station wagons.

Wright said the Falcon has firmly established its fuel economy reputation by delivering up to 30mpg. Recommended oil change interval with the Falcon's full flow oil filter is 4,000 miles.

For those who want increased performance—about 15% better than the standard 85hp, 144.3 cubic

(Continued on page 147)



# Hardtop Is Only Style in De Soto

**D**E SOTO is clearly—and attractively—in the running for '61, although some writers had predicted (not SAJ) that the '60 models would be the last for this member of the Chrysler Corp. family.

There's been one change, though: All '61 models are hardtops.

The established engineering and styling elements such as single-unit construction, torsion bar suspension and the finned look have been retained. There have been some interesting developments under the hood. Over-all, the big change for 1961 is the sum total of many refinements and improvements.

The '61 operates on regular gasoline. The 361-cubic-inch V-8 that is standard in all De Sotos for '61 has a 9-to-1 compression ratio with a horsepower rating of 265. Engineers lowered the compression ratio from 10 to 1 to give De Soto its new economical powerplant. Performance is reportedly undiminished, however, because the intake valves have been enlarged for greater efficiency. Also, the Torqueflite three-speed transmission available on all De Sotos serves to increase gas savings and performance.

The new De Soto engine carries an alternator (introduced on the Valiant only earlier this year)



Changes in the grille from the '60 models are obvious here.

rather than a generator. Tested in millions of miles of fleet, police and special heavy-duty service, the alternator charges at idle, preventing low-speed battery run down. The alternator's increased output contributes to longer battery life.

A two-door and four-door hardtop will be offered, each bearing the one name, De Soto.

The hardtops lend themselves well to design theme that starts with canted headlights framing a horizontal grille topped by a distinctive air scoop. The sides are clean with one spear of molding running the length of the car. The sculptured fins begin at the front doors and sweep back to balance the gently curving rear deck.

The windshield slants straight up to the roof line, eliminating distortion caused by a curved upper edge, yet the glass occupies the

same spacious area as last year's model. A new roof design on the four-door model features twin-speed lines from front to rear of the new models.

Inside the De Soto the instrument panel restates the styling motif of the exterior front-end with upward lines countering the horizontal rows of pushbuttons for transmission and heater.

The bright interior tones of blue, silver and red are keyed to De Soto's 13 basic exterior colors which in turn provide 32 color combinations.

The '61 has Unibody, welded single-unit construction. Each unitized body is put through a 14-stage rust-proofing process to resist corrosion. This body structure has been improved through new manufacturing techniques to meet the highest standards for quality.





## BODY SHOP OPERATIONS

# Door Handles and Cylinder Locks

RECENTLY we heard a service advisor ask a customer how he broke the vent glass on his car.

His reply was that he could not get the door open. When asked if he had the key, he said, "Yes, but the lock wouldn't work."

Sometimes this does happen, but not if handles and locks are checked periodically. They, like other items, require some service.

Following is the service procedure for some current models:

Dodge, Dart and Plymouth:

General description:

All 1960-model cars are equipped with new design door locks (Fig. 1). The major changes are the use of a six-tooth gear-type rotor with-

By E. M. LOWERY  
Technical Editor

out "take-up," and having "free wheeling" outside handles when the lock is locked. Otherwise the locks and the inside and outside controls are similar to those on previous cars.

Provision is made in these locks to adjust the outside handle linkage through a hex head bolt which is exposed at the side of the lock rotor on the outside surface of the door shut face. (See items B and E.) This occurs on all doors—front and rear.

These locks also include a plastic wedge, above the rotor, which slides

on the top of the striker plate to prevent up-and-down movement of the door when it is latched.

These are several important differences between front and rear door locks. The front locks are locked from the outside with the key. On the inside the locking is accomplished by pushing the remote control handle forward. Both these operations, in effect, disconnect the outside door handle control linkage from the lock mechanism so that in the locked condition the outside handle moves freely without releasing the lock.

The rear door lock works similarly but the inside locking control is a separate lever on the door inside surface (same as previous model cars).

Service diagnosis:

Door hard to open or sticks:

1.—Striker rubbing on door shut face or on lock rotor housing. Add or remove shims back of striker to remove interference.

2.—Lock striker not set at correct angle or position. Adjust striker so that top of lock housing moves parallel to bottom surface of striker teeth and door is not raised or pulled down as lock engages striker.

3.—Door moldings or trim interfere with door pillar. Relocate moldings, being sure screw heads do not project.

Door hard to close:

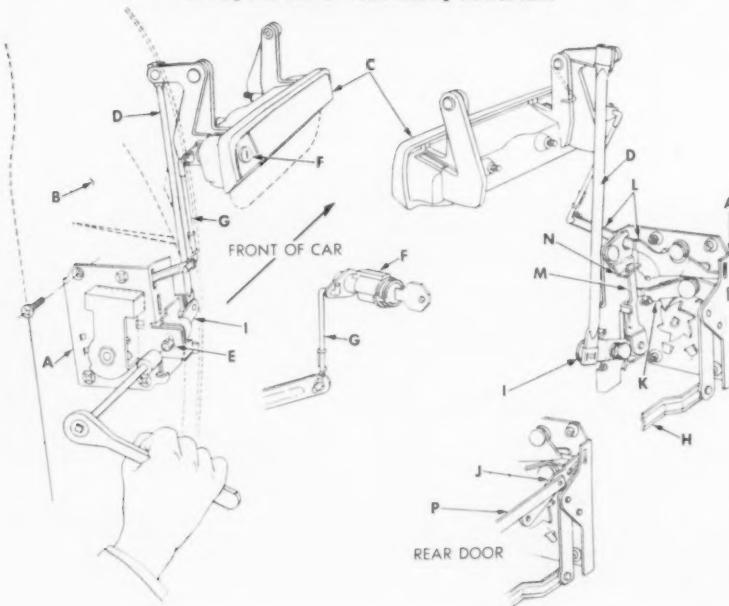
1.—Examine door seals for correct installation without high spots or other crowded conditions when door is in proper closed position.

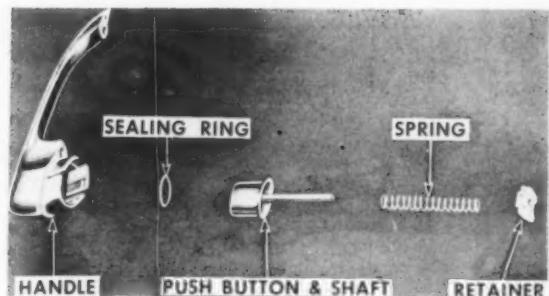
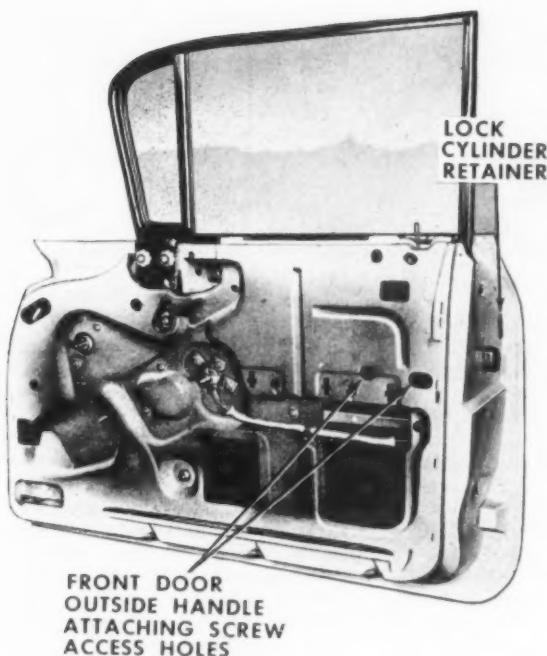
2.—Check door rubber bumpers to make sure they are of proper thickness to fill gap between door and pillar surface when door is closed to proper position. Cut bumpers down if too thick.

3.—Make sure hinges are properly aligned and well lubricated.

4.—Adjust lock striker plate so that lock engages in second position when door surface is flush with pil-

Fig. 1—Door lock and outside handle of the '60 Dodge, Dart and Plymouth: A—door lock, B—door shut face, C—outside handle, D—link outside handle to lock, E—adjusting screw, F—key cylinder, G—link key cylinder to lock, H—link door lock remote, I—lever door lock release, J—lever rear door lock blocking, K—lever detent actuator, L—locking lever, M—transmitting link, N—actuator transmitting link and P—lock locking control link.





Left: Fig. 2—Front door outside handle and lock cylinder removal of the 1960 Chevrolet.

Above: Fig. 3—Front door outside handle assembly of the 1960 Chevrolet.

lar or adjoining sheet metal.

Outside handle does not return:

1.—Handle interferes with escutcheon, providing a rough-feeling operation. Insert heavy screwdriver between handle and escutcheon and pry in direction to remove interference. This is a temporary fix until new handle can be installed.

2.—Spring in handle broken. Handle free, but does not return completely. If broken spring, install new handle.

3.—Interference in lock mechanism. Handle sluggish but shows no interference in handle mechanism and spring is operating properly.

(a) Remove hardware and trim panel. Remove handle to lock link. If handle is still sticky, remove and replace with new handle.

(b) If handle is all right, remove, check for lack of lubricant or interference in pivot and spring of lock release lever and attached levers and links. If lubricant will not free, attempt to remove burrs and loosen pivots. Failing to repair, replace with new lock.

Outside handle does not release lock:

1.—Be sure that lock can be released with key and also the remote control handle on front doors. On rear doors check also with the lock locking control knob. Check if one or the other of the two releasing systems does not unlock door.

2.—Loosen adjusting screw on door lock face and move face down

to lowest position, then raise until handle is just flush with escutcheon.

3.—If outside handle does not move out when adjusting screw is at lowest position, it indicates that the handle to lock link is not connected at one end. Remove inside hardware and trim panel. Connect link to lock or handle as required, making sure that the clips hold it securely.

4.—If handle to lock link is found to be attached at both ends, remove lock and examine for bent or broken-off ratchet dog lifting arm lip K. If this fails, install new lock.

Inside handle does not release lock:

1.—On front doors, remove trim panel and hardware and adjust remote control assembly forward until it will completely release the lock. Check to be sure it will lock the lock also.

Reinstall the trim panel and hardware. Recheck with remote control handle to make sure the lock is operating correctly.

2.—On rear doors, remove the trim panel and hardware. Loosen remote control attaching screws and with the lock locked move the remote control forward as far as possible without forcing or bending the lock-to-control link. Tighten the remote control attaching screws. Check to be sure that the lock will operate properly and will lock and unlock from the remote locking knob. Retrim and check to be sure

lock operates satisfactorily.

Inside handle, front door, will not lock and unlock door:

1.—If necessary, rearward adjustment of remote control may be required to effect a compromise condition.

2.—If this does not result in proper operation, check for a bent or binding link from remote control to lock.

3.—If the difficulty is in the lock, check for lack of lubrication, bent levers and loose pivots. If lock is damaged, replace with new assembly.

Key will not lock or unlock front door:

1.—If key will neither lock nor unlock the lock but inside remote control handle will, remove trim panel and check for key cylinder to lock link attachment at lock or handle. Reconnect if it is off.

2.—If lock will not unlock or lock and key operation is stiff, remove trim and check for poor lubrication in lock and bent levers. Straighten levers, or if repair is not possible, replace with new lock.

3.—Key will not unlock door; may be due to outside handle adjustment or sticking lock levers.

4.—If lock refuses to unlatch with outside handle operating freely, readjust outside handle.

Lock does not latch when door is closed:

1.—Make sure hinges are properly aligned and well lubricated.

2.—Inside or outside handle sticking or poorly adjusted, preventing lock from latching.

3.—Lock does not latch in extreme cold, but is all right at normal temperature. Remove lock and clean out all grease with kerosene and lubricate with medium engine oil. Replace in door and make all adjustments.

Front door lock does not kick-

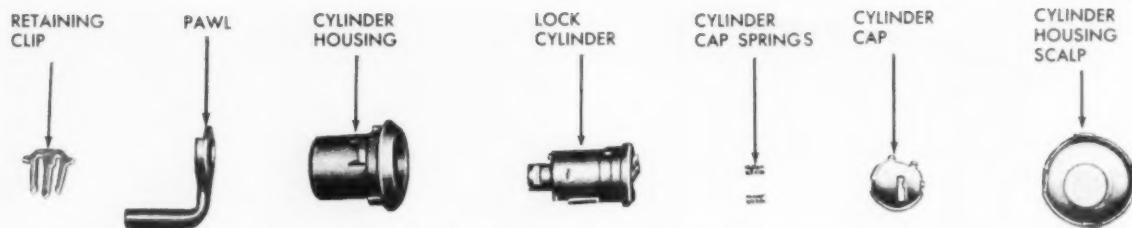


Fig. 4—Front door lock cylinder assembly—1960 Chevrolet sedan styles.

off (unlock) when door is closed after locking lock:

1.—This may be caused by improper outside handle adjustment.

2.—Bent lock lever.

3.—Lock levers bent and overriding one another. This is an obsolete lock and must be replaced.

Front door lock locks automatically when door is closed:

This may be result of:

1.—Friction in lock levers on mating parts which can be overcome by lubrication and straightening bent parts.

2.—Obsolete lock which must be replaced.

3.—Remote control improperly adjusted.

Rear door locking control does not lock or unlock door:

1.—Bent lock levers require removal of trim panel and hardware and straightening bent parts.

2.—Loose or very tight pivot rivets in the locking control levers; replace lock.

3.—Obsolete lock; lever does not travel far enough to lock or unlock the lock. This requires a new lock.

Service procedures:

In order to service the lock, to remove the door outside handles and the key cylinder, or to adjust the inside lock remote control, it is necessary to remove door inside handles, arm rests, garnish molding, trim panel and plastic water curtain.

It is not necessary to do any un-

trimming to adjust the outside handle linkage, since the adjusting screw is on the outside surface of the lock face of the door.

Door inside hardware and trim—removal:

This is the same as on previously-built vehicles except for remote control handles (door lock inside handle) and rear door lock locking knob.

To remove the lock inside handle on all cars, remove the nut in the center of the handle hub and pull handle off the square shaft. On models where the handle is not covered by the arm rest, a snap-in plug, or cover, is removed from the handle with a knife blade to expose the handle attaching nut.

On models with the handle behind the arm rest, remove the arm rest or remove cover plate to reach the remote control handle attaching nut.

The rear door locking control knob is attached to its shaft on all models by means of a small screw through the center of the hub into the center of the end of the shaft. The knob is positioned on the shaft by spline teeth on the O.D. of the shaft and the I.D. of the hole in the knob.

Outside door handle and key cylinder—removal:

First, remove inside hardware and trim. Run window glass up to top position. Disconnect link (D) from handle to lock by pulling away

from lock release lever (I). The link clip will snap off over the ball on which the link pivots.

On front door only disconnect the link from the key cylinder (F) to the lock (G) by removing formed wire clip from the rod and removing rod from lock lever (L).

Back off the two nuts on the studs at the back of the handle. Pull handle out of door.

To remove lock cylinder (with or without removing outside handle) take out cylinder retaining screw at back of cylinder and pull cylinder out of handle.

To reinstall the handle, reverse the above procedure, being sure to grease all pivots on the linkage as they are assembled.

Door lock and remote control assemblies—removal:

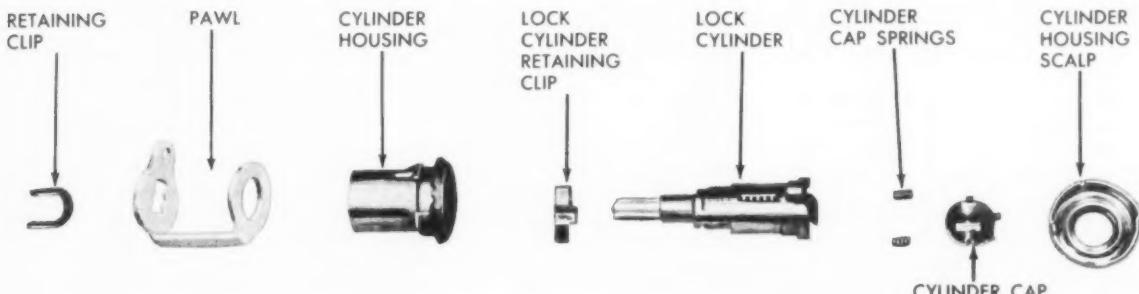
Front doors (all except hardtop):

After removing the door inside hardware and trim and disconnecting outside handle control links, remove glass run felt channel.

Starting at top end of division bar and working rearward, pull the channel down and out of its retaining channel all the way to the glass at the lock face of the door and then pull straight up so the channel will slide out from between the glass and the lower channel.

If the glass fits tight, loosen the glass guide channel extension (lower extension of division bar) at its bottom attachment to allow the glass to move forward. Having

Fig. 5—Front door lock cylinder assembly of the 1960 Chevrolet.



removed the felt channel, next pull up the metal that retained the felt channel below window opening.

Next, carefully raise the glass by means of the regulator crank, being sure the glass follows in the channel from which the felt channel was removed.

With the glass in this position, disconnect the outside handle link at the lock, and the key cylinder link at the lock. Remove the two screws attaching the remote control assembly to the door inner panel and the four screws holding the lock to the door shut face. Slide the lock out of hole in shut face into the door and rotate the lock to disconnect the remote control link at the lock. Remove both lock and remote control from the door.

To reassemble the lock in the door, reverse this procedure. When reinstalling the metal glass run channel (with glass lowered) be sure it is retained in the clip at the bottom bracket and that the top clip hooks into the slot provided.

After this channel is secure, push the felt channel down the edge of the glass into the metal channel. Be sure it goes back of the lower clip. Soap solution added to the glass run will ease installation. (Never use oil.) Then press the upper part of felt channel into the proper location, up the side and along the top of the door window opening.

Be sure to adjust the glass fit between the channels by moving the adjustment at the bottom end of the division bar so the glass cannot get out of the channels yet is not bound between them.

Reassembly of hardware and trim is carried out in reverse order of disassembly. Be sure the plastic water curtain is pushed into the slot in the lower section of the door panel.

All rear door and front hardtop doors:

Raise glass to top position and remove lock and remote control screws (rear) door. Also take nut off locking lever assembly and remove assemblies from panel. Rotate bottom of lock forward to disconnect remote and lock control (P) links. Take lock out of door.

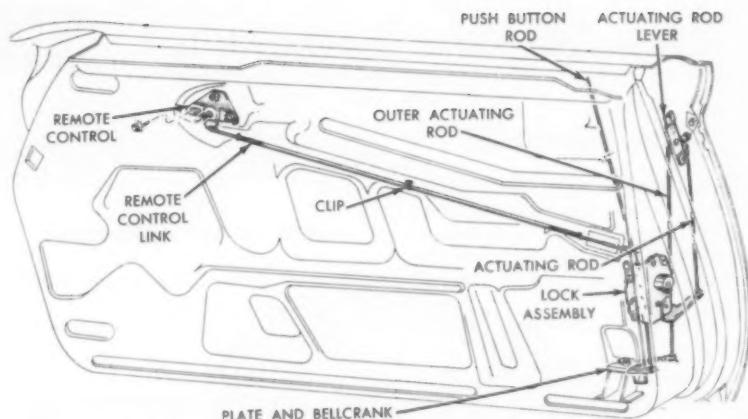


Fig. 6—Front door lock and remote control of the 1960 Ford.

#### 1960 Chevrolet:

Front door outside handle assembly:

##### Removal and installation:

- 1.—Raise door window. Remove door trim assembly and detach inner panel water deflector sufficiently to gain access to door outside handle attaching screw access holes (Fig. 2).

- 2.—With magnetized screwdriver, through access holes, remove two screws securing handle to door outer panel.

- 3.—Remove door lock handle and gaskets from outside of body.

- 4.—To install, reverse removal procedure.

Front door outside handle push-button:

##### Disassembly and assembly:

- 1.—Remove door handle from door assembly.

- 2.—Depress retainer slightly and turn retainer one-quarter turn. Remove retainer, spring and pushbutton and shaft from handle (Fig. 3).

- 3.—To install, reverse disassembly procedure.

Front door lock cylinder assembly—all four-door styles:

##### Removal and installation:

- 1.—With a suitable tool, pry out lock cylinder retaining clip (Fig. 2) sufficiently to allow removal of cylinder, then remove cylinder and gasket.

- 2.—To install, insert cylinder with

curved edge of pawl toward door hinge pillar and reverse removal procedure. Using key, check operation of lock cylinder assembly at this time.

##### Disassembly and assembly:

- 1.—Remove cylinder assembly from door.

- 2.—With suitable tool, remove retaining clip and remove pawl (Fig. 4).

- 3.—Carefully bend open four cylinder housing scalp tabs and remove scalp.

*Note:* While removing scalp, hold cylinder cap, which is under tension from cap springs, depressed with finger. After scalp is removed, observe position of springs and cap so that they can be reinstalled in same relative positions.

- 4.—Remove cylinder from cylinder housing.

- 5.—To install, reverse removal procedure.

Front door lock cylinder assembly—all two-door styles:

##### Removal and installation:

- 1.—Raise door window. Remove door trim assembly and detach inner panel water deflector.

- 2.—Through large access hole detach lock cylinder connecting rod from lock lever. To detach connecting rod, disengage clip, insert a screwdriver between connecting rod and lock lever, then snap rod from spring clip on lock lever.

- 3.—With a suitable tool pry out retaining clip (Fig. 2) sufficiently to allow removal of lock cylinder with attached connecting rod from door.

- 4.—Door lock cylinder connecting rod may be removed from lock cylinder assembly as a bench operation.

- 5.—To install, reverse removal  
*(Continued on page 130)*

## November: Winterizing the Body

**Summer's gone and winter's breathing down with a threat of worse things to come. Weatherstripping and other winterizing items will be the next topic.**

Readers are invited to contribute to—

# SHOP TALK

## THOSE COLOR NAMES

L. E. Minkel, Studebaker-Packard's new marketing vice president, brought a quick laugh from editors attending the annual S-P press conference at South Bend recently when he said:

"It really is a problem thinking

up a new name for the same color each year."

## WHERE "F-85" CAME FROM

Want to know where the name "F-85" came from?

Asked this regarding the smaller



A column of informal comments about the automotive trade and its problems.

### SWISS SURPASSES THE CHALLENGE

**It's in orbit!**

**BLACK JACK**  
Flexible SOLDER  
WITH non-toxic CREAM HARDENER  
FOR IMPACT AREAS AND GENERAL REPAIRS  
No Dust Storms!

## A Spectacular New "Black" Body Mender Guaranteed to Meet and Beat any Price Competition



This is the Body Mender that has revolutionized body-mending. Widely imitated... never duplicated. Costs pennies more, but worth dollars more!

If you've been buying "price" instead of results in a black body mender, those costly disappointing days are over.

**NOW YOU CAN GET BOTH PRICE AND QUALITY in a black body mender**

**SWISS GUARANTEES IT IN THE NEW BLACK JACK . . . "The best competitively priced 'black' you've ever used, or your money back!"**

### SWISS LABORATORY, INC.

1533 HAMILTON AVE., CLEVELAND 14, OHIO  
One of America's Largest Independent Manufacturers  
of Body and Wire Solders

Full-Time Jobbers Representative Covering the South from Our Cleveland factory.  
"PAT" SINEATH (Expert Bodyman)

SOUTHWESTERN REPRESENTATIVES  
Ralph L. Jeffress Co.  
2023 Lucas Drive, Dallas Tel.: LA 6-8567

car being introduced by Oldsmobile, Oldsmobile's General Manager Jack Wolfram explained at the annual press conference at Detroit last month:

"We were going to call it Starfire, but a test of public reaction to that name was that it would be an expensive sports car."

Then they picked Rockette, but decided that was too feminine.

Since it was, after all, an Oldsmobile, it was felt it should have a number, just as the 88 and 98 are numbered. The 85 came from there and the F prefix was adopted.

Under driving conditions where the Dynamic 88 was found to give 16mpg, the F-85 gave 20. Other tests also showed it turning in 25% better mileage under such comparisons, Wolfram said.

## WANTED: BUILDING PLANS

Winter Park, Fla.

Gentlemen:

In the very near future, we plan to start construction of a building which will house our garage business, including body shop, paint shop and complete automotive service with front-end and frame equipment, as well as at least one hydraulic lift.

We will do all types of auto repairs and rebuilding and also will have on the same premises gas pumps for service-station-type op-

Address any comments to: Southern Automotive Journal, 806 Peachtree St., N.E., Atlanta 8, Ga.

# “...flexibility is the outstanding feature...”

says **T. E. (TOM) ROADY,**  
Dodge dealer, Gardena, Calif.

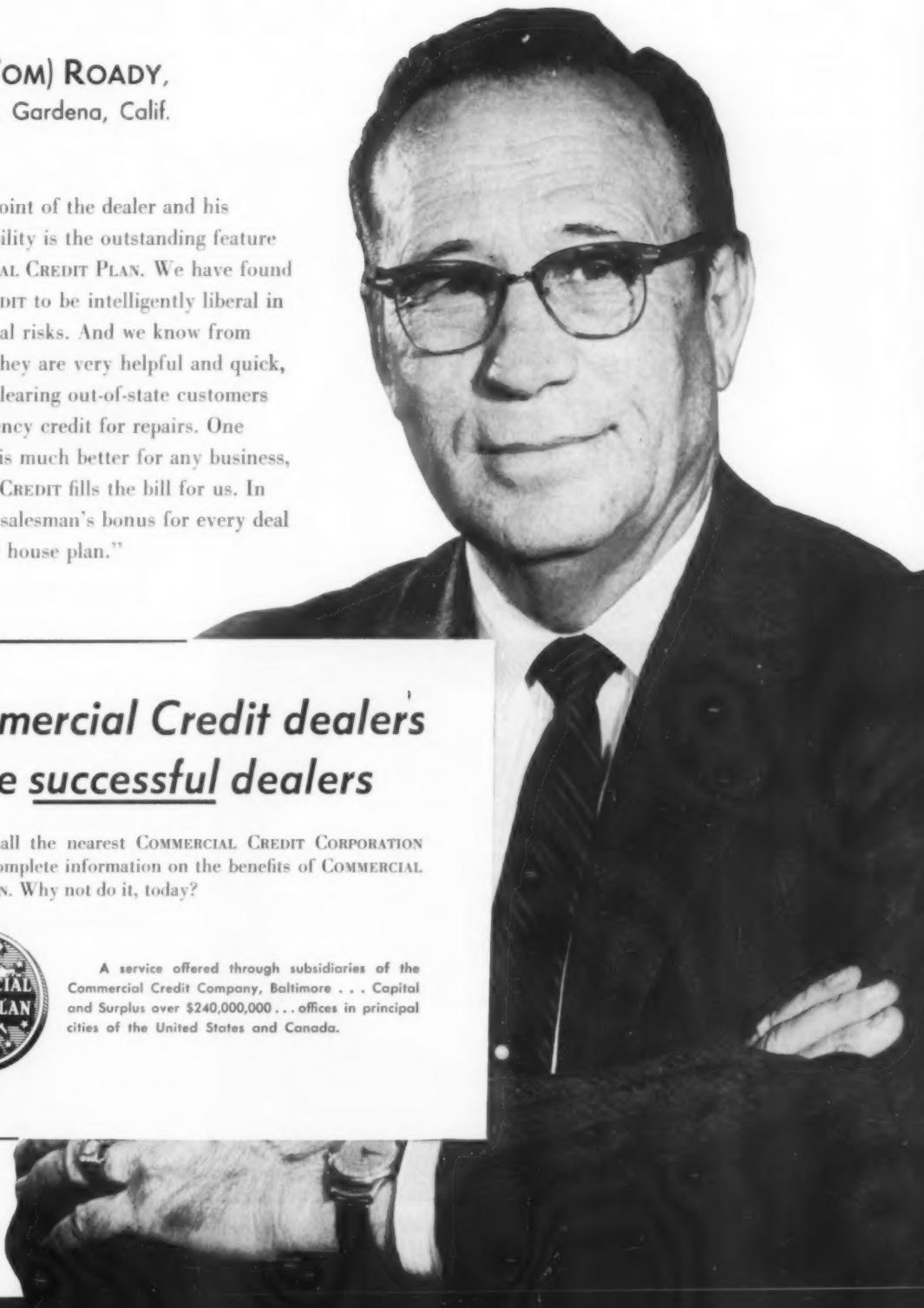
"From the standpoint of the dealer and his customers, flexibility is the outstanding feature of the COMMERCIAL CREDIT PLAN. We have found COMMERCIAL CREDIT to be intelligently liberal in accepting marginal risks. And we know from experience that they are very helpful and quick, for example, in clearing out-of-state customers who need emergency credit for repairs. One financing source is much better for any business, and COMMERCIAL CREDIT fills the bill for us. In return, we pay a salesman's bonus for every deal that includes our house plan."

## *Commercial Credit dealers are successful dealers*

Write or call the nearest COMMERCIAL CREDIT CORPORATION office for complete information on the benefits of COMMERCIAL CREDIT PLAN. Why not do it, today?



A service offered through subsidiaries of the Commercial Credit Company, Baltimore . . . Capital and Surplus over \$240,000,000 . . . offices in principal cities of the United States and Canada.



eration. We will have a corner location with some 30,000 square feet of space available, but will need some space for storage.

We would greatly appreciate any literature, sketches, floor plans or suggestions you may have available which might help us in planning our new building. We subscribe regularly to your publication.

DALLAS BOWER,  
Owner,

Dallas Bower College Garage  
Glad to furnish tear sheets of our  
recently-published building plans

and to suggest where other plans  
might be obtained.

### PLUMB OUTTA GAS!

Maurice Sparitas of Algonquin Estates, Newburgh, N. Y., recently found his car out of gas—but that wasn't all!

Sparitas had driven his car away from a shop where it had been left for the repair of the gas tank. It soon stopped. Thinking he was out of gas—and quite correctly, too—

Sparitas sprinted to a nearby station and returned with a can of gasoline.

As fast as he poured the gas in the tank pipe, just as fast it ran out the bottom of the car, splashing on Sparitas' trousers. He looked down and—you guessed it—there was no gas tank!

City firemen rushed to the scene and poured sand on the spilled gasoline, while Sparitas called on the repair shop.

### JINXED BY BEAUTY

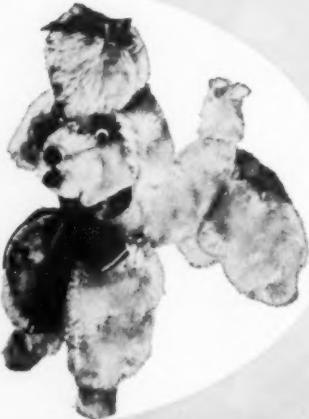
The Kentucky Automotive Wholesalers Association wrote Tom Friedli of Automotive Parts Co., Bowling Green, for his picture. He didn't have one immediately available, but you see here what his pretty daughter, Susan, did to supply the need.



Tom Friedli says . . .

"LET K.A.W.A. TAKE CARE  
OF YOUR TROUBLES, TOO."

Get  
plush  
profits  
and a  
plush  
poodle,  
too!



**FREE**

... from Mac's, your most unusual premium offer ever—a plush, life-like poodle! Just order 12 each of these three fast-moving Mac's radiator products. You get a big 16" poodle and big profits, too. Be sure to order your supply today!



**MAC'S SUPER GLOSS CO., INC.**

LOS ANGELES 42 • CINCINNATI 26

While the well-known jobber was snoozing away a little noon-day nap at home after lunch, the teenager shuddered this shot. Tom didn't know about it until the program was published.

Another Friedli daughter, Frieda, was recently named "Miss Southern Kentucky."

### AIR-CONDITIONING INFO

Allendale, S.C.

Gentlemen:

I overlooked the article by E. M. Lowery in the May issue on "Servicing Air Conditioning." Are there any reprints or tear sheets that I may have?

Also, I would appreciate any information you may have on auto air conditioning.

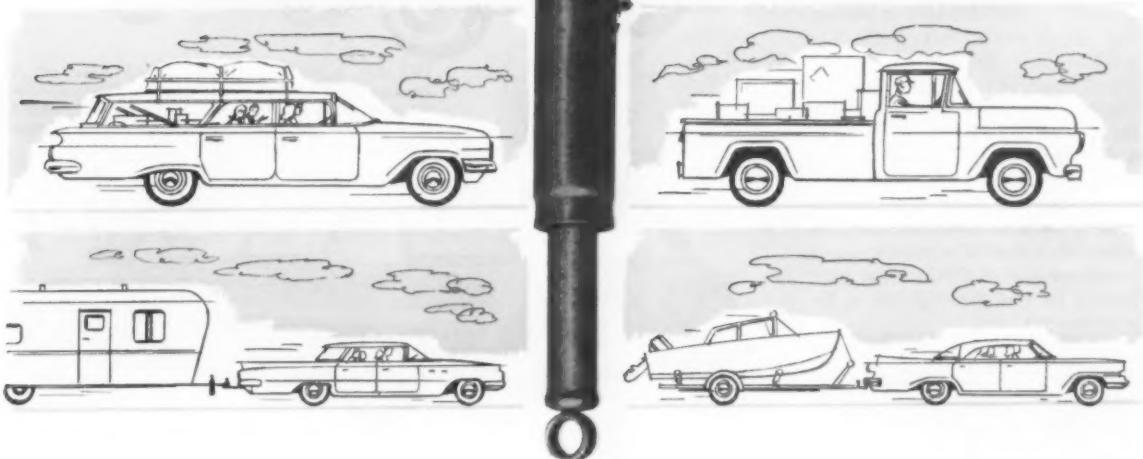
DAVID E. DAWSON,  
Dawson Radiator Shop

# NOW AVAILABLE through your NAPA Jobber . . . **BRIGGS LOAD-ABSORBER**

PAT. APPL'D FOR

New rear suspension built especially for all your customers who carry

## **HEAVY LOADS**



**LOOK AT THE MARKET!** More and more of your customers are driving with *extra heavy loads* today. Not just owners of station wagons, house trailers, boat trailers, light trucks, but even vacationists and businessmen who overload their trunks on long trips. These are your hot prospects for the Load-Absorber.

**LOOK AT THE PRODUCT!** This new suspension, called the Briggs Load-Absorber, will *take "the load" off their minds!* It's a combination oil-air unit that combines the best functions of a shock absorber and an overload spring in a *sealed unit*. Thoroughly

tested, it's one of the biggest advances in motoring history for greater riding comfort and safety. And it's a *new idea—a new product*—for you to show and sell!

**LOOK AT THE PROFIT!** The Briggs Load-Absorber is *priced right* for sales; so little for the motorist to pay for so big an improvement. You'll like the big profits you get when you start selling Load-Absorbers for cars, station wagons and light trucks. You'll make better friends out of your customers. See your NAPA Jobber now.

Join the Parade of Profits . . . cash in on the NAPA Parade of Parts

**BRIGGS** **LOAD**  
**ABSORBER**

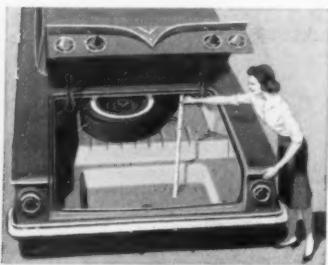
The Briggs Shock Absorber Co., Cleveland 15, Ohio



**Now—Packing Them in  
at Chevrolet Dealers'!**

# THE GREATEST SIXTY-ONEDERFUL CHEVROLET

Here's the car that gives Chevrolet dealers across the country a running jump on the rest of the field—the sensationally sensible '61 Chevrolet. From its parkable new out size to its remarkably roomy new in size, this new Chevy introduces to its price class a whole new measure of usable newness and practical elegance on wheels. To start with it's trimmed a bit on the outside for extra clearance in parking and maneuvering. But inside are spacious new dimensions in sales appeal—such as larger door openings, higher easy-chair seats, more head, leg and foot room in most models and a cave-sized new trunk. Combining so many useful new virtues with traditional Chevrolet thrift and dependability, this new Chevy promises the Chevrolet dealer's showroom a continued run in 1961 as the most heavily traveled thoroughfare in the auto business.



There's never been a trunk like it before! The floor's recessed more than half a foot—to form a deep well for holding things that used to be left home. Packing's easier, too—the loading height is as much as 10½ inches lower.

\*\*\*\*\*  
**INTRODUCING THE '61 CHEVY  
BISCAYNE 6**

*the lowest priced full-sized Chevy with big-car comfort at small-car prices!*

Here's full-scale style and space and one of the world's best rides in a car that's low priced and economical to drive. Chevy's new '61 Biscaynes—6 or V8—give a full measure of Chevrolet quality, roominess and proved performance—yet they're priced down with many cars that give a lot less!



**IMPALA 4-DOOR SPORT SEDAN**—one of five Impalas that introduce a new measure of elegance from the most elegant Chevies of all. Notice what beautiful sense the new roof line makes—the front door entrance is nearly 2 inches higher.



**NOMAD 9-PASSENGER STATION WAGON.** There's a wide choice of six Chevrolet wagons, each with a cave-sized cargo opening nearly 5 feet across and a new concealed compartment for stowing valuables.



**BEL AIR 2-DOOR SEDAN**, like all '61 Chevrolets, features all that usable newness in Body by Fisher—more front seat leg room and, thanks to a shaved-down driveshaft tunnel, more foot room in the rear.



*Biscayne 4-Door Sedan*

# SHOW ON WORTH!



## NEW '61 CHEVY CORVAIR

More Space...  
More Spunk  
and Wagons, too!



The newest car in America: the CORVAIR 700 LAKWOOD 4-DOOR STATION WAGON. Like all Corvairs, it's powered by a dependable air-cooled rear engine.



This sporty CORVAIR 700 CLUB COUPE offers almost 12% more luggage space up front plus a longer range fuel tank.



Here's the handsome CORVAIR 700 4-DOOR SEDAN. Provisions for heating ducts are built right into its Body by Fisher for more equal distribution of heat front and rear.



Now in production — the GREENBRIER SPORTS WAGON with up to twice as much room for people and things as ordinary wagons (shown with optional-at-extra-cost third seat in position).



For 1961 Corvair put the spare tire in the rear in coupes and sedans—where it doesn't take up an inch of luggage space.



This shows for sure who remembers that middle-seat passengers have feet, too. It's Corvair's practically flat floor.

Dear Bill,

Don't you forget it, bud, and you don't have to remind us to get right for the winter season. We've been heading down that old preparation trail for some time now.

I know it isn't unusual to find that the very guys who spout the loudest about "preventive maintenance" are often the characters soonest caught with their stocks down when the preparation for their service drive is afoot.

We've always leaned on our old winter service special to sell the



insist on  
the world's  
**MOST POWERFUL**  
parts cleaning  
solvent...

## GUNK® Hydro-Seal

the original and still the  
best metal cleaner  
and paint stripper

Now in 1½, 3 and 6 Gallon size carburetor bench kits  
with or without basket . . . also 1 Gallon cans.

For easier cleaning of Automatic Transmission and Engine parts, GUNK H.S. is supplied in 30 and 55 Gallon size open-head drums which are ideal immersion tanks. Heavy duty baskets are available for easy handling of parts. The replenishable floating-seal makes GUNK H.S. last longer . . . Powerful self-scouring action SAVES LABOR!

Write us today for complete information

® Reg. trade mark



things we should have been able to sell in the other big service season —our spring tune-up special. Our customers lose some of their best "no sale" arguments with themselves when winter is coming on.

A leaky muffler, they may feel, will last awhile longer if the weather is so mild that the windows are open, but they know it is almost sure murder if it leaks fumes into the car when the windows are closed. You find the leak, you've sold the muffler, at this time.

We've got a little better break in the anti-freeze line this year, so we intend to cover this field like a blanket. The last couple seasons rather took the wind out of our sails, and we probably lost a lot of possible sales by taking it for granted that the customer had already bought his anti-freeze at the grocery store. This year we have a few new talking points, a better deal all around, so we're going to try and sell 'em all.

Making a multiple sale or "package deal" of everything the customer should need for the season provides a good lever for selling some fringe items that he might ordinarily shop around for. For the busy man or woman, the short stretches of time that he must be without a car is looked on as a pain in the neck. So we play on the fact this this one-stop operation will put them in shape to save future trips to the shop, so they are more likely to purchase everything they need without chasing around town trying to save a dime here and a nickel there.

Pushing this angle, of course, puts a responsibility on us to see that nothing important is overlooked, but that is part of the inspection job we promise them.

To be ready for a job like this we have to be prepared in the service and parts departments to fill the order we've set up for ourselves. At our last service meeting we talked over the campaign and pointed out that every man would have to

WAHOO!

**FRAM AND FRAM SUPPLIERS  
REWARD DEALERS WITH GIFTS  
THAT ARE ABSOLUTELY FREE!**

**FRAM** **MILLION \$\$\$  
GIVEAWAY**



These gifts are yours ABSOLUTELY FREE...personal gifts... for your home and workshop... for every member of your family!

**HERE'S HOW YOU GET YOUR FREE GIFTS:**

- 1 For every 24 Fram Filters you buy your Fram Supplier will give you two gift certificates ABSOLUTELY FREE.
- 2 Certificates may be redeemed for your choice of fabulous nationally advertised merchandise.
- 3 Gifts may be secured for two certificates, some for three, four, five, six, ten, twelve, etc.
- 4 Certificates may be redeemed at any time or accumulated and redeemed for gifts in higher value categories. (Offer expires Dec. 31st, 1960.)

**Gifts are ABSOLUTELY FREE...**they don't cost you a penny. They're your reward for selling Fram Filters. Get your gift Certificate Book from your Fram Supplier...start saving valuable Gift Certificates today.

**CURRENT FRAM NATIONAL ADVERTISING MAKES FRAM FILTERS EASIER TO SELL THAN EVER BEFORE!** Outstanding 4-color ads in the Saturday Evening Post...billboards on major highways...exciting point-of-sale material!

**Get your share of  
valuable free gifts.  
ORDER FROM YOUR  
FRAM SUPPLIER  
TODAY!**



FRAM CORPORATION, Providence 16, R. I.

be on his toes to see that we were ready for the business we were soliciting.

First we had to see that the customer did not have to wait at the door without someone giving him a greeting and a promise to get to him soon. The parts men had their stocks built up in the proper areas, and every serviceman has to do his job right while looking for other work that might require attention.

Since this is a slightly larger order than the owner usually buys, we make every effort to have a word

with him on delivery to make certain he understands the work order and is satisfied.

So, you see, your reminder is a little late. We know you have to plan tomorrow's business yesterday, and that we've done.

By the way, have you noticed how all the '61's are going in for more comfort, including having less length when you try to park one in your home garage? My Ole Lady will certainly be glad!

Yrs,  
Ed.

## Unusual Car: Tempest (Continued from page 37)

Synchromesh gear ratios are 2.94 to 1 in first, 1.68 to 1 in second, 1.00 to 1 in third and 3.32 to 1 in reverse.

The Tempest makes automobile history with its front engine-rear automatic transmission arrangement and has the first torque converter transmission employing a "split torque" principle.

It is a light-weight, air-cooled, three-element torque converter, two-speed planetary transmission with an automatic upshift depending upon car speed and throttle position. This transmission is integrated to the differential carrier to form a transaxle combination. As a result, the torque converter is rear of the main transmission unit, separated by the differential carrier. In high gear the drive is split with approximately 40% of the drive straight mechanical and only 60% of the torque going through the converter. This principle results in a solid drive feel and minimum slip or efficiency loss.

### Has Part-Throttle Downshift

A part-throttle downshift is provided for better low-speed performance and acceleration characteristics. At speeds below 25mph, part-throttle downshift to low will occur if the accelerator pedal is moved to approximately one-half throttle, subsequently upshifting at approximately 35-40mph. For maximum acceleration, full-throttle downshift can be attained to approximately 45mph. Manual downshift at speeds below 50mph is provided for overrun braking and use in mountainous areas.

The shift selector lever is on the instrument panel to the right and above the steering column and provides positions for reverse, neutral, drive and low.

Equally unique in concept and design is the  $\frac{5}{8}$ -diameter propeller shaft connecting the front-mounted engine to the rear-mounted transmission. It is manufactured of special-quality, triple alloy forged steel. Heat-treated and shot-peened for high fatigue life, the flexible shaft was precisely developed and extensively tested, engineers said. Its curvature virtually eliminates floor hump.

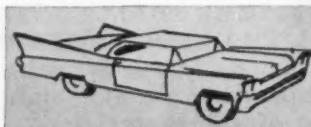
Housing the propeller shaft is a torque tube of heavy gauge steel that rigidly joins the engine and transmission. This curved housing serves to support bearings for the prop shaft and divorces engine torque reaction from engine mounts,



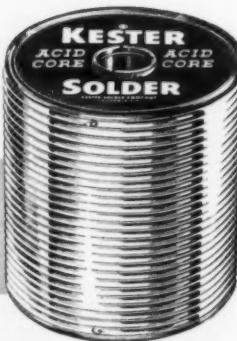
First and Foremost  
with the Automotive Trade!

# Kester Solder

KESTER ACID-CORE SOLDER is the time-proved favorite of the automotive service shop. Unvarying in highest quality, uniform in manufacture, always dependable . . . Kester is the perennial national "buy-word" in Solder.



SEND FOR free literature today



## KESTER SOLDER COMPANY

4236 Wrightwood Ave., Chicago 39, Ill. • Newark 5, N. J. • Anaheim, Calif. • Brantford, Ont., Canada  
OVER 60 YEARS' EXPERIENCE IN SOLDER AND FLUX MANUFACTURING



## NEW PROFITABLE PROMOTION FOR TEXACO DEALERS!

Remember Texaco's toy tank truck offer last year? It was the most successful promotion of its kind ever conducted! Now Texaco Dealers have another giant promotion . . . a large, scale-model Toy Texaco Service Station. It's a big-value traffic builder . . . advertised in national magazines such as LOOK, LIFE, SATURDAY EVENING POST, READER'S DIGEST, AMERICAN LEGION, SUNSET. Also on the *Texaco Huntley-Brinkley Report*, TV's most popular news program . . . and on children's TV shows, plus compelling station-display material. All this means more customers, more profits for Texaco Dealers this Fall! Just one more reason why it pays to sell the best... **TEXACO**

SAJ-10

A modest investment may provide you with a promising future as a Texaco Dealer, Consignee or Distributor. Investigate — send this coupon to Sales Manager, Texaco Inc., 135 E. 42nd Street, New York 17, N. Y.

I would like to get complete information about the possibility of teaming up with Texaco as a  
 Dealer     Consignee     Distributor

NAME \_\_\_\_\_

STREET \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_

STATE \_\_\_\_\_

permitting use of softer engine mounts.

Tempest front and rear suspension is an original Pontiac design, reducing unsprung weight and allowing independent action of each wheel.

New independent front suspension has an "A"-frame-type upper control arm and a cantilever-type lower control arm with a compression strut. This unitized front suspension reportedly assures a consistent high quality in production, alignment being accomplished under

closely controlled conditions in manufacturing. Notably from a service standpoint, the front suspension assembly can be built up as a unit, crossmember attachment to the unitized construction body being by three bolts on each side.

Front coil springs are seated on the lower control arm and shock absorbers operate within the coils. To completely isolate the body from road noise, tops of coiled springs are seated against rubber shims. Ball joints with phenolic seats and anti-dive suspension geometry are also

features of this system. Front wheel bearings are of the tapered roller type, providing desired capacity in minimum space.

The swing axle rear suspension system, one of the most interesting aspects of the Tempest chassis, has a crossmember attached to the integral body in four positions. Attached to this crossmember is the transaxle support mounted in rubber for noise and vibration isolation. This is in turn affixed to the differential in a manner to provide fore-and-aft shimming for toe variation. The differential and final drive gear case is therefore mounted to the sprung mass of the car, axle shafts being driven through a universal joint on either side of the differential.

The lower control arms are "A"-frame-type arrangement, each having four studs which extend through the brake backing plate for attachment. This forms the lower seat for the rear coil springs, while the upper seat is the suspension cross-member. Angled shock absorbers operate within the spring coils. Rear axle shafts are attached to the differential with universal joints having a splined yoke which extends into the side gears of the case.

Both the six-passenger sedan and station wagon have a 112" wheelbase, are 189.3" over-all and 72.2" wide. Carrying out Pontiac's wide track design is a 57" tread. The sedan is 53.5" high and wagon 54.3".

The two-seat, four-door station wagon features a quick-opening, self-locking, one-piece tailgate that provides easy access. The tail door is counterbalanced by torsion bars. There is a hidden locker beneath the floor for convenient storage and a chromed roof top carrier is available as an accessory.

The Tempest has 15" wheels. Standard tire size for the sedan is 6.00 by 15 and 6.50 by 15 for the station wagon.

### Studebaker-Packard Buys Clarke Floor Machine

STUDEBAKER-PACKARD Corp. has purchased Clarke Floor Machine Co. of Muskegon, Mich., manufacturer of floor maintenance equipment, including floor polishers, scrubbers, sanders, vacuum cleaners and power sweepers.

Clarke had sales of \$9,081,000 in 1959, with pre-tax earnings of \$903,000. Pre-tax earnings for the current year are expected to show an increase, it was announced. Earlier this year, S-P acquired Gravely Tractor Co.

## Faster Warm-up with AUTOSTAT® Winterstats



Change that 'stat! Make thermostat inspection a vital part of every winterizing job . . . and tell customers the *faster warm-up* they get on cold mornings with Autostat Hi-Temp Winterstats. This balanced Power Pill® self-cleaning thermostat pep's up engine performance for all-round smoother running.

Easy to sell . . . easy to change . . . and an easy profit to pocket!

And easiest of all to stock: just 4 models of the Autostat Thermostat cover 95% of all cars on the road today!

# Robertshaw

Robertshaw-Fulton Controls Company



FULTON  
SYLPHON  
DIVISION

Knoxville 1, Tennessee



## Everybody goes for SARAN SEAT COVERS

Buyers know saran . . . trust saran . . . want saran. It's *your* best seller, *their* best buy, proven by 10 years' experience. SARAN SEAT COVERS: look better . . . fit better . . . last longer . . . have built-in color . . . "breathe" for cool comfort . . . clean up easily . . . won't show wear. Buyers know saran by name, trust saran for quality, want saran for satisfaction. So sell what 'most everybody wants . . . SARAN seat covers. They're profitable.

See "The Dow Hour of Great Mysteries" on TV.

THE DOW CHEMICAL COMPANY • MIDLAND, MICHIGAN



*Studebaker Announces the* '61 LARK



with

# Performability...

( a new kind of performance  
so exciting you have to drive it  
to believe it...! )

**Performability** sums up what you can sell with the '61 Lark. Performability is all-around road performance, and sales performance in the showroom—

**A new kind of power.** All-new Lark ram-induction Six, a 112 HP engine with big overhead valves and 8.5 compression ratio, delivers tremendous thrust with each piston stroke. Result—fast getaway, instant acceleration at higher speeds, and amazing economy! You have to drive The Lark to believe it.

**A new kind of response.** New Lark automatic transmission takes hold without loss or lag—so smooth there's never a jump from gear to gear. Yet it won't creep while idling! There's a new recirculating ball steering system, combined with new suspension to give exceptional control and stability. You corner sharply with ground-level balance, even turn full circle with fingertip control. You have to drive The Lark to believe it.

**A new kind of compact to sell.** The '61 Lark spread-eagles the compact market—from the basic 2-door Six to the luxurious, elegant Cruiser with V-8 power from 180 to 225 HP. You have 7 body styles (2 and 4 door Sedans, 2 and 4 door Wagons, Convertible, Hardtop and long-wheelbase Cruiser). You have smart new low-silhouette styling...new greater visibility...new big bonded brakes...more than 60 advances in all! You can sell matchless economy, matchless performance—'61 Lark Performability.

**And see what else you get with The Lark!** Massive TV advertising—National Football League games on CBS, Riverboat on NBC, The Outlaws on NBC, Dan Raven on NBC and Jack Paar on NBC. Plus concentrated advertising in the big-circulation magazines, outdoor and heavy Newspaper schedules...all keyed to bring in the prospects for a demonstration. You get a very profitable relationship with the friendliest Factory in the business. You get the dazzling Hawk, and the Champ trucks which sell like passenger cars. You get Sales Performability!

# LARK®

You have to drive it to believe it! The Lark by Studebaker

## DEALERS:

There's still time to be right  
for the '61 year!

SAJ-10-60 T-1

## GET THE FACTS ON LARK DEALER PROFITS

Dealer Development Division  
Studebaker-Packard Corp., South Bend 27, Ind.

Gentlemen: Please send me the facts—in strictest confidence—no obligation

NAME \_\_\_\_\_

POSITION \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY/STATE \_\_\_\_\_



## Get more mileage out of customers!

*J-M Brake Linings give extra miles of wear... make more friends for you!*

Your own reputation depends greatly on the quality of the brake linings or lined brake shoe sets you install. That's why Johns-Manville carefully builds so many extra miles of trouble-free wear into J-M linings.

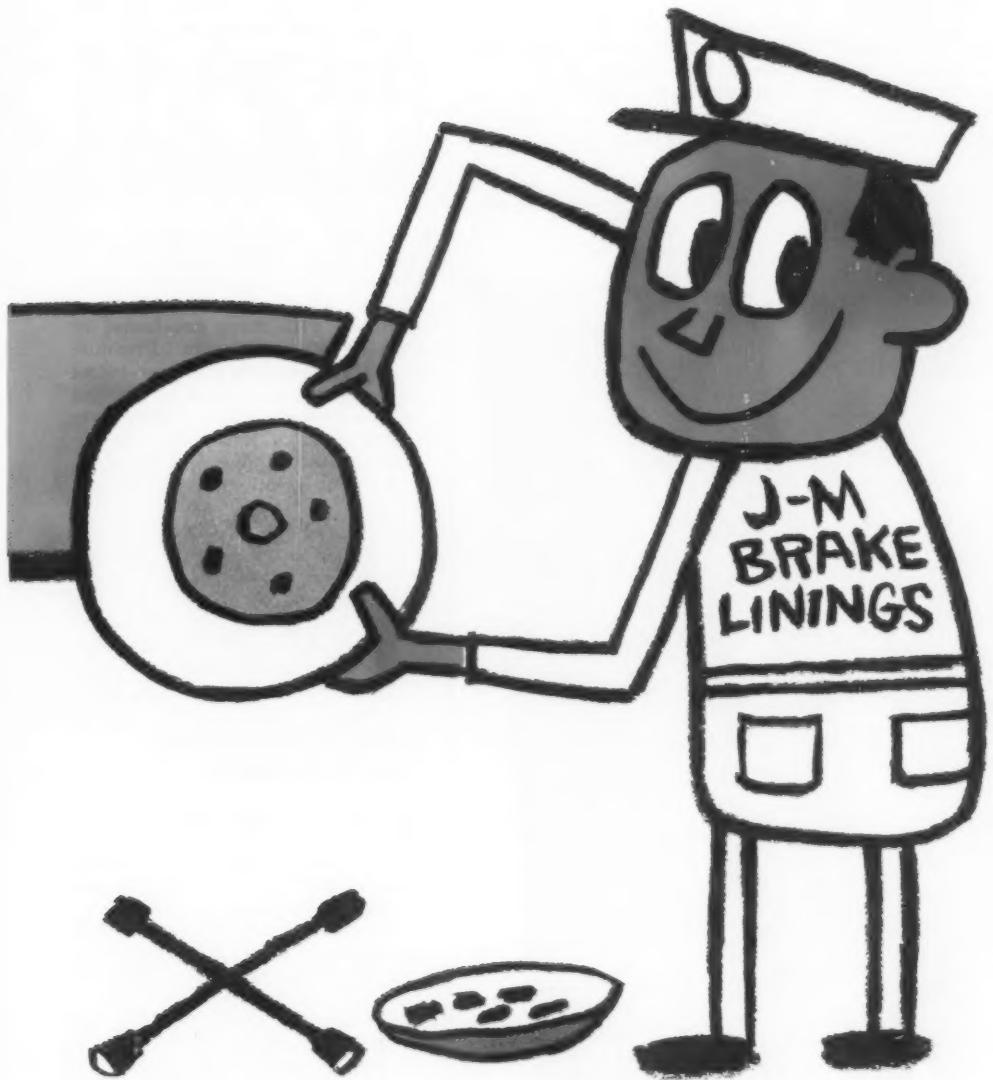
You can offer your car owner customers a choice of:

**J-M PB SETS**, power built for power brakes. They are tough and durable... offer greatest resistance to wear in hard service or on light commercial vehicles.

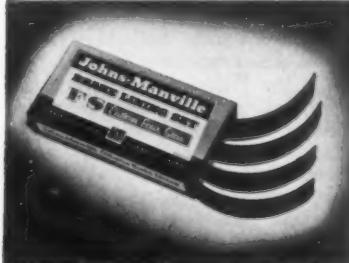
**J-M CUSTOM 4-STAR SETS**, for

top performance in both power or non-power systems. They assure smooth performance, stability and dependable stops.

**J-M WK WIREKLAD SETS**, a fully molded, all-purpose lining that is competitively priced, yet delivers safe, trouble-free operation.



All Johns-Manville linings are made using select grades of asbestos



fiber and non-scoring metal and friction particles. They are precision molded under high compression... thus producing the most durable and stable brake linings available. J-M linings are known for their freedom from sensitivity to temperature changes or moisture conditions.

Build your reputation—and your business—by giving your customers the extra benefits built into J-M brake linings. For more information, call your J-M Distributor. Or write to Johns-Manville, Box 14, N.Y. 16, N.Y. In Canada: Port Credit, Ont. Cable address: JOHNMANVIL.

**JOHNS-MANVILLE**  
BRAKE LINING

JOHNS-MANVILLE  
**JM**  
PRODUCTS

## Pontiac's New Bodies

(Continued from page 38)

per control arms, replacing the single-arm design, improves lateral stability of the rear suspension, especially during cornering conditions. Upper arms also utilize rubber bushings at points of attachment.

Steel coil springs mounted over the axle rather than forward provide a softer ride with less shake. A rubber cushion between springs and frame guards against trans-

mission of noise into the passenger compartment. Rear shock absorbers have new integrated mounting for easier service and more uniform quality.

Pontiac's 389-cubic-inch V-8, now called the "Trophy 425," is available in a wide selection of model variations.

Standard in Catalina, Ventura and Star Chief models with synchromesh transmission is an 8.6:1 compression ratio, regular fuel engine with two-barrel carburetor. An 8.6:1 compression ratio, regular

fuel engine with four-barrel carburetor is standard with synchromesh in Bonnevilles.

Basic engines with Super Hydra-Matic transmissions have a 10.25:1 compression ratio and use premium fuel. Catalina, Ventura and Star Chief models employ a two-barrel carburetor, while Bonnevilles are equipped with four-barrel carb.

Again available at no extra cost in all models utilizing Hydra-Matic transmission is the 425-E economy V-8. The Trophy 425-E with an 8.6:1 compression ratio operates on regular fuel, employs a two-barrel carburetor and has a new low axle ratio of 2.56:1.

Optional with all models using either heavy-duty synchromesh or Hydra-Matic transmission are 10.75:1 premium fuel engines equipped with three two-barrel or four-barrel carburetors. Premium fuel 10.25:1 engines with four-barrel carburetors are optional in Catalina models using either heavy-duty synchromesh or Hydra-Matic transmission, and in Ventura and Star Chief models equipped with Hydra-Matic.

Tailpipes on Star Chief and Bonneville models are aluminized. Engine oil is supplied from a new low four-quart capacity oil pan (five quarts with filter). New fuel tanks on all models but the Safaris have a 25-gallon capacity. Safaris carry 18.5-gallon tanks.

## Dobbs of Hull-Dobbs Dies In Memphis

JAMES K. Dobbs, Sr., 66, Memphis, Tenn., Ford dealer for 39 years, died last month in a Dallas hospital where he had been under treatment for acute asthma.

Dobbs quit school after the fifth grade to go to work. He started in the automobile business in Birmingham, Ala., but went broke.

His first car job in Memphis was with Union Motor Co. Later he joined Horace H. Hull, former city engineer, to form the Hull-Dobbs Ford dealership, the largest Ford outlet in the world. The firm has branches in 35 other cities, including Chicago, Minneapolis and Louisville.

The partners branched into the restaurant business in 1934, forming the Dobbs Houses, Inc., which now operates about 125 restaurants, snack bars and airline catering agencies. Dobbs' interest in beef cattle led to purchases of a number of ranches by the restaurant chain. Dobbs also held oil interests in Texas and Oklahoma.

## Thor

### Everything you want in Reconditioning Tools... and more!

Thor body reconditioning tools are a sure way to turn slow, laborious repair jobs to profit. This pair of seasoned performers from Thor will step up your output per man in both quantity and quality.

Polishers—two models. Thor EL-91 high speed polisher, equipped with pneumatic backing pad for safe application at high speed. For heavy duty jobs, model EL-92 is recommended.

Sanders—three models. Remove metal faster, more efficiently at lower cost. Rubber bumper guard protects finishes. 7" standard duty, 7" and 9" heavy duty sizes.

A network of Thor jobbers will demonstrate. Thor Power Tool Company, Aurora, Illinois. Branches in all principal cities.



*Another extra service from Associates*

## **Our fast approvals help clinch the sale!**



Associates has realized for many years that a fast credit approval on a retail contract often makes or breaks the sale. That's why all of our field men have ample authority to make a decision and make it fast. So if slow financing service is giving you an unhealthy rash of walk-aways, phone Associates today!

In addition, Associates can offer you floor planning plus comprehensive and credit life insurance services. We've been helping dealers for 42 years, and our service fully reflects this experience.

So the next time you need a fast approval, call the man from Associates.

# **Associates**

INVESTMENT COMPANY • SOUTH BEND, IND.

*Associates Discount Corporation • Associates  
Discount (Canada) Ltd. • Emmco Insurance Co.*

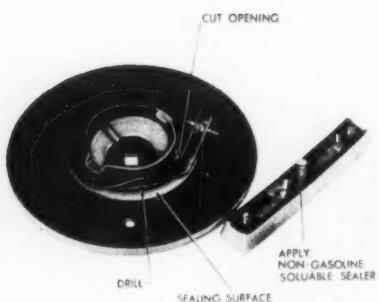


Fig. 1

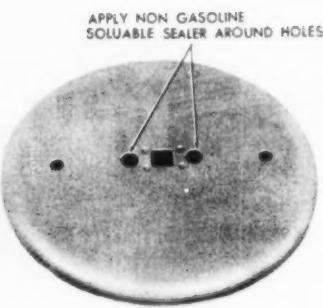


Fig. 2

# LOOK!!! 10 FREE CLAMPS\*

to introduce you  
to another  
**MURRAY**  
exclusive...the  
**"CLAMP-A-RAMA"**

**Spectacular  
New "Full-Vue"  
Hose Clamp  
Display**

Just reach out...pick off the clamp you want. Nothing could be easier. And remember, with each "Clamp-a-Rama" display, you get 10 Murray "Gold Seal" Clamps—FREE. They come packed right in! You get a total of 110 Murray "Gold Seal" clamps for the price of 100. Ask your jobber for details, or write to—

**MURRAY COMPANY**  
TOWSON 4, MARYLAND



## \*PLUS CASH!

Murray Messengers are now calling upon dealers coast-to-coast...handing out \$25 cash to any dealer who, when they call, is displaying the "Clamp-a-Rama"...or \$10 cash to each dealer who carries a stock of Murray "Gold Seal" Clamps. A Murray Messenger may call upon you at any time. So be ready...check your stock of Murray Clamps, and display the "Clamp-a-Rama" today.

**MURRAY**  
COMPANY  
TOWSON 4, MARYLAND

## Stopping Water Tendency In Suburban Gas Tanks

**P**LYMOUTH has issued the following service bulletin:

Under extreme inclement weather conditions, some water may enter the gasoline tank through the cap vent on 1958, 1959 and 1960 Suburban models. In instances where this condition is encountered, the gas tank cap can be modified to prevent water from entering as follows:

Remove cap handle and cut a  $\frac{1}{16}$ " hole in the gasket, approximately  $\frac{1}{8}$ " from outer edge of gasket (see Fig. 1). Center the point of a  $\frac{1}{16}$ " drill in the gasket hole and drill through the brass gasket support ring (Fig. 1). Do not drill the sealing surface of the gasket support ring. Slide the gasket around so the two holes do not line up.

Apply a non-gasoline soluble sealer, such as the MoPar sealing compound, part No. 1057794, around the base of the handle stud (Fig. 1). Apply the same type of sealer around the two holes in the cap (see Fig. 2).

## Valiant Adds Bodies

(Continued from page 46)

provided as part of the air-conditioning installation. It pulls more air through the radiator than the regular engine fan.

The heating and ventilating system has been refined for better control of air distribution.

The four-door, three-seat Suburban, available last year as a V-200, has been dropped from the line. Instead, as a dealer-installed option, a third-seat package is available for buyers who require more seating space. For greater passenger comfort, the seat back of Suburban rear seats has been widened  $4\frac{1}{4}$ ".

## Wilcoxon of Arkansas Named NADA Director

**S**EARCY Wilcoxon, owner of Hamburg Auto Co. and Crossett Auto Co. in Arkansas, and one of the oldest General Motors dealers in his state, has been elected director on the National Automobile Dealers Association board to succeed Roland Hughes of Jonesboro.

President of the Bank of Hamburg, Ark., and a director of the Bank of Crossett, Wilcoxon has served in every official capacity in the Arkansas Automobile Dealers Association.

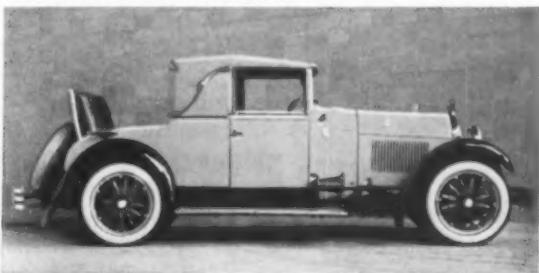


Any two-tone job  
turns out better with  
**SCOTCH BRAND Masking Tape**



"SCOTCH" BRAND Masking Tape is the surest, fastest way to turn out top-notch two-tone or overall paint jobs . . . whether for the exacting restoration of an antique, or refinishing to meet the demands of today's top-quality appearances. It goes on easier . . . sticks at a touch. Excellent adhesion prevents paint from creeping under, gives a clean, sharp separation. And "SCOTCH" BRAND Masking Tape strips off clean . . . leaves no jagged edge . . . no messy adhesive residue. Order from your jobber today.

CAN YOU NAME THIS CAR?



1927 KISSEL Coupe Roadster (6-cylinder) restored in authentic two-tone original trim by Mr. Robert L. Hawkinson, Richfield, Minn.

*3M Products give you the right start for a quality finish!*

## 3M Automotive Products

"SCOTCH" IS A REGISTERED TRADEMARK OF THE 3M CO.  
**MINNESOTA MINING AND MANUFACTURING COMPANY**  
... WHERE RESEARCH IS THE KEY TO TOMORROW



## Plymouth Sheds Fins

(Continued from page 50)

inch Golden Commando V-8 by means of larger-diameter intake valves to improve volumetric efficiency. The compression ratio on this engine has been reduced to 9 to 1 for better operation on available premium fuels.

The engine and horsepower line-up is: 30-D Economy six, 145; Standard Fury V-800, 230; Super Fury V-800 (Powerpak), 260; Golden Commando High Perform-

ance, 305; and Sonoramic Commando, 330.

A new heavy-duty manual transmission is standard equipment on all 361- and 383-cubic-inch V-8's, all 318-cubic-inch V-8's with power pack and all heavy-duty taxis. This new transmission has an exceptionally high torque capacity and uses ratios of 2.55 and 1.49 with a reverse ratio of 3.34.

For the 318-cubic-inch Fury V-800 engine there is a new light-weight manual transmission which achieves high torque capacity



R. H. East (left), president of the Atlanta (Ga.) Automobile Dealers Association, presents John H. Lander, Atlanta Dodge-Simca dealer, with the association's nomination for the 1960 National Benjamin Franklin Quality Dealer Award sponsored annually by The Saturday Evening Post. Well known for his activities in automotive circles, Lander has been president of the Atlanta dealer group and the Georgia Automobile Dealers Association. He is currently the Georgia director for the National Automobile Dealers Association, which he has served as a committee man and as treasurer for the 1958-59 term. He is national chairman of the Dodge Dealer Advisory Conference and his activities in behalf of the Boy Scouts earned him the Lorillard Spencer Trophy, annual Scouting Award, for the year just concluded.

## WORLD BESTOS

### BRAKE LINING - a line to GROW with!



M. D. (Buck) Taylor



- says M.D.(Buck) Taylor,  
prominent Alabama  
Distributor

Taylor Parts & Supply Co., Inc., Andalusia, Alabama, has branches in Dothan, Ala., De-Funiak Springs, Fort Walton Beach and Panama City, Florida.



Complete line of World Bestos top quality BONDED SETS for cars and trucks.

**Mr. Taylor says:** "We have enjoyed an unusual increase in sales of World Bestos brake lining and Bonded Shoes.

"It is gratifying to handle a line with which we can grow, and World Bestos has certainly proven successful for us. We have handled World Bestos for 22 years. It is top quality merchandise, amply advertised and supported by a good sales program.

"We have enjoyed doing business with World Bestos and heartily recommend the line to anyone."

*Profit by Mr. Taylor's experience . . . GROW with World Bestos! Write for full information, catalog and prices.*

WORLD'S FINEST  
BRAKE LINING

## WORLD BESTOS

NEW CASTLE, INDIANA

through the use of shot-peened gears and a ratio selection of 2.12, 1.43 and 2.73 (reverse).

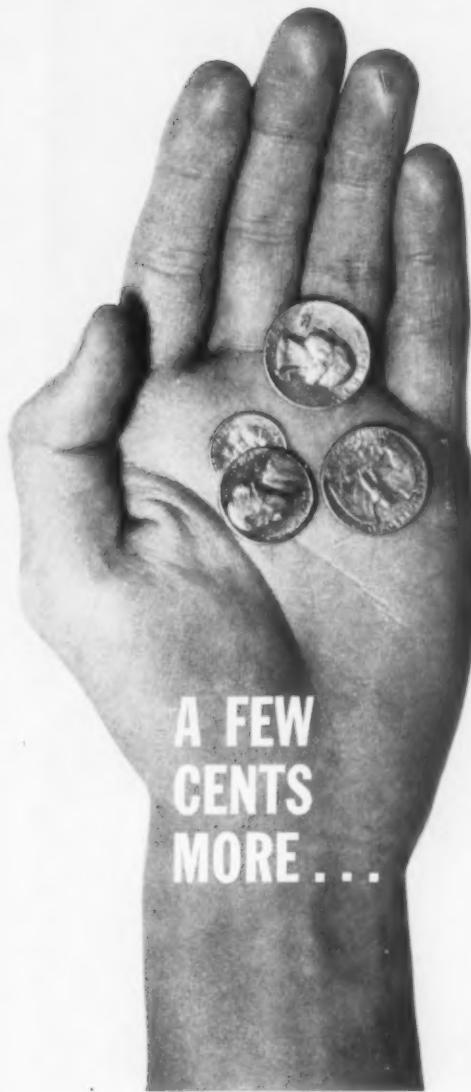
An improvement in the manual transmission for the 30-D Economy six engine features an increase in the low-gear ratio from 2.50 to 2.71 to provide easier starting on steep grades and more lively break-away performance.

### Gaunitz of Associates Will Retire Jan. 2

WILLIAM F. Gaunitz, senior consultant, board member and former president of Associates Investment Co., will terminate all duties and a service of more than 25 years with the company when he retires Jan. 2.

Joining the company in 1935, Gaunitz advanced through the positions of assistant treasurer, treasurer, comptroller, vice president, executive vice president, president and senior consultant. While he was president of the company from 1949 to 1960, Associates experienced a rapid expansion of all phases of its operations.

Gaunitz intends to join his family in Pompano Beach, Fla.



CP-740 TORK-KING.  
½" drive Air-Wrench  
Capacity: to ½" bolt  
size. "Lok-on" Angle  
Drive easily attached  
for getting into hard-  
to-reach spots.

## gives dollars more performance

**CP-740** is the air-wrench smart mechanics reach for. When you buy a ½" drive Impact-Wrench, spend just a few extra cents per week\* and get a whale of a lot more value. Get a CP-740 Tork-King. No drop-off in power after months of the toughest use. Requires the absolute minimum of service. And CP Air-Wrenches have ring-type retainer for the

strongest drive shanks you can get . . . not weakened by retainer holes. That means a rugged, solid shank that delivers full impact action . . . resists breakage. With the CP-740, as with all CP Air-Wrenches, you get the ease and convenience of Vari-Tork power control . . . simple reversibility. Spend the little extra for the best in air-wrenches...invest in higher quality . . . higher output. Buy CP!

\*With CP Time-Payment Plan



# Chicago Pneumatic

8 East 44th Street, New York 17, N. Y.

AIR AND ELECTRIC IMPACT WRENCHES • BEAD BREAKERS • ZIP-GUNS • PNEU-DRAULIC TRUCK JACKS AND PUMPS

**Now Alemite equips you for**

## **COMPLETE SERVICE PROFITS!**

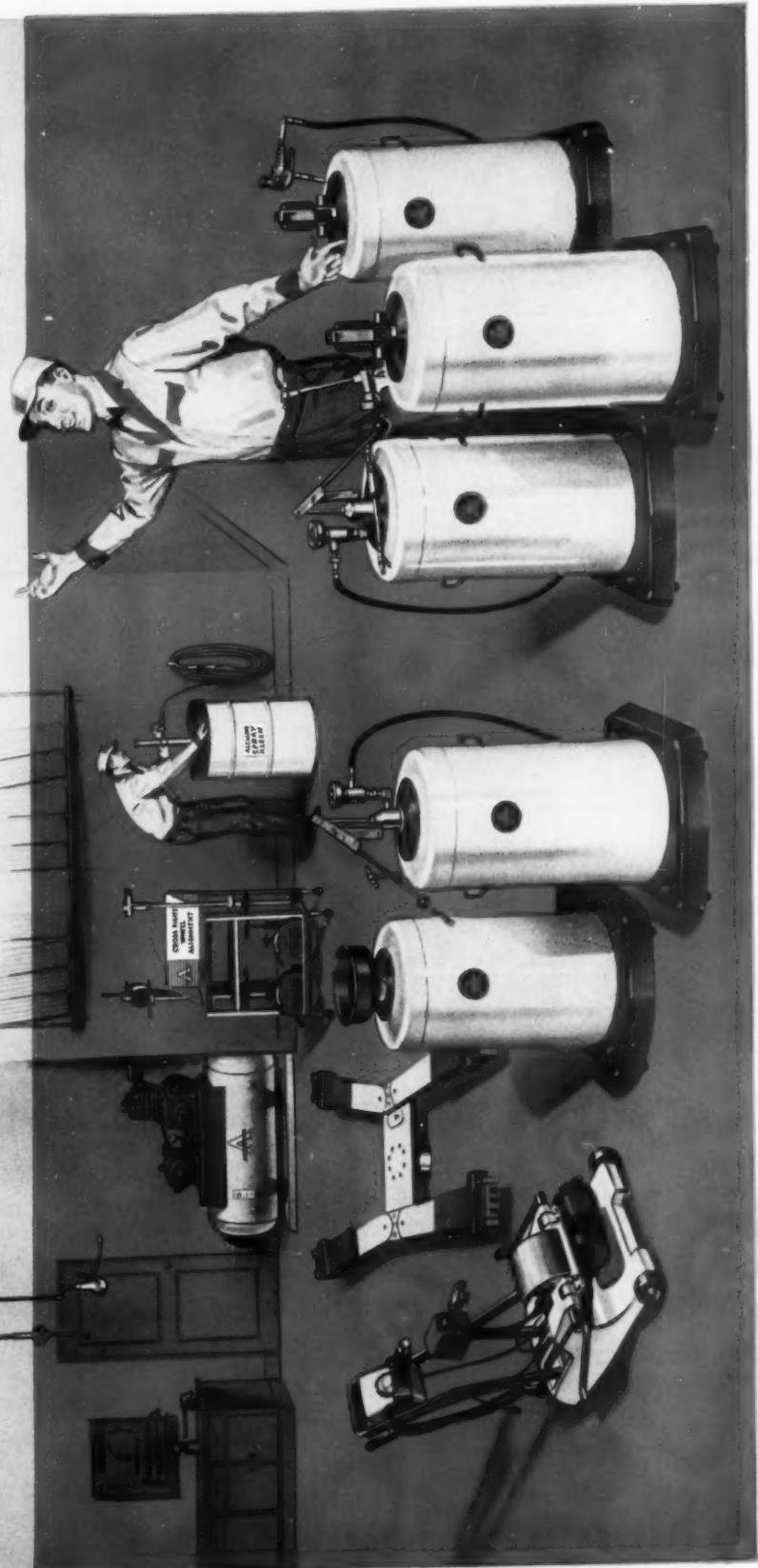


- New Alemite STRATO LINE Lubrication Equipment—New looks . . . New features . . . New design unmatched in the industry!
- **NOW** Modern Alemite Electronic Wheel Balancing, a year 'round money-maker!
- **NOW** Profit-Making Alemite Cross-Sight Wheel Aligner — at the lowest investment!
- **NOW** Faster, Easier Car Washes with the Alemite Spray Kleen Car Wash System!
- **NOW** Alemite compressors and drive-on lifts for top quality!
- **Alemite offers unmatched warranty protection and nation-wide service on all Alemite Equipment!**



1850 Divernon Parkway, Chicago 14, Ill.

★ ★ ★  
See for yourself how Alemite can help you get all the equipment you need for complete service repairs and bigger profits. Send for your FREE Alemite STRATO LINE catalog today!



## Servicing Prop Shafts

(Continued from page 55)

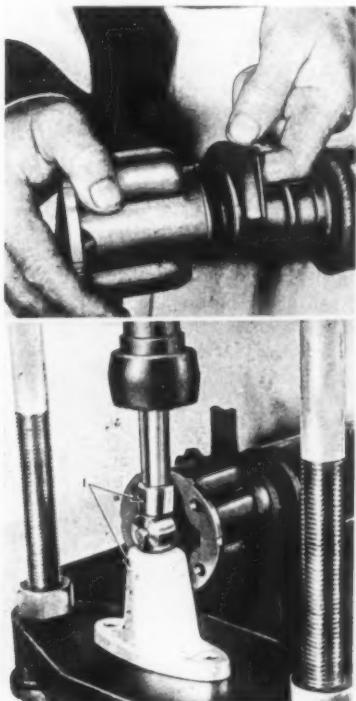
between the shaft and the cover.

4.—Clean and examine the trunnion and the raceways in the body for roughness or wear. If either part is to be replaced, use the correct tool on hydraulic press to press the pin out of the end of the shaft.

### Cleaning and inspection:

1.—Clean the parts in kerosene, mineral spirits or other suitable solvents. If the pin, body and boot have not been removed, make sure that the body and boot are clean inside as well as outside.

2.—Examine parts for wear and



Top: Fig. 12—Working dust cover through body.

Above: Fig. 13—Installing universal joint pin.

damage. The boot should be free from cracks and pin holes.

### Assembly:

When the trunnion pin and body have not been removed, a new boot can be installed, after coating all parts with universal joint lubricant (Figs. 11 and 12). Without using tools, stretch the boot over the pin and work it through the body into position on the shaft.

1.—The trunnion pin must be centered in the propeller shaft. Use tool C-552-3313-3567 in a hydraulic press. Pin will be centered when

ram contacts the spacer portion of tool (Fig. 13). Use tool C-552 for cars with six-cylinder engine and manual transmission, C-3313 for cars with six-cylinder engine and Torqueflite six transmission and cars with eight-cylinder engine and manual or Powerflite transmission. Use C-3567 for cars with Torqueflite transmission.

### Cross and roller universal joint: Disassembly:

1.—Remove retainers and press one roller and bushing assembly out of the yoke by pressing the op-

posite bushing in.

2.—Press the remaining roller and bushing assembly out by pressing on the end of the cross assembly.

3.—Remove cross from yoke. The cross and seal retainers are serviced as an assembly. Do not remove seal retainers from the cross.

### Cleaning and inspection:

1.—Clean the parts in kerosene, mineral spirits or other suitable solvents and dry with compressed air.

2.—Examine the bearing surfaces

## LONG RANGE DRIVING !



Like a tough golfball, L & S Bearings are manufactured to roll the greatest distance. Built to exacting specifications, they give the maximum service for today's rugged driving conditions. Tee off to more profitable sales with L & S Bearings... the QUALITY line... the COMPLETE line!



# L & S BEARINGS

L & S BEARING CO. P. O. BOX 995 OKLAHOMA CITY, OKLAHOMA



T. Wayne Maffett (right) of Atlanta, Ga., became the 100,000th owner of a Comet less than six months after the car was introduced. John Pugmire (left), president and general manager of Pugmire Lincoln-Mercury, Inc., Atlanta, delivers the bill of sale while William A. Toms, Atlanta district sales manager for the Lincoln-Mercury Division, looks on.

**Here's the  
"Bell-Ringing"  
News...**



For best results, mount the No. 700 in an upright position.

Write for complete catalog

**THE 1960 MODEL  
"RITE-RING"  
DRIVeway SIGNAL  
by ACME**

Loud, clear bell rings throughout the station

**No. 700**

- ★ No Relay
- ★ No Transformer
- ★ No Contact Points to line up

Replaceable Coil (No. 705) can be installed in just a few moments...ON THE SPOT!

**ACME AIR APPLIANCE Co., Inc.**  
205 NEWMAN STREET • HACKENSACK, N. J.

## HOW GOOD ARE YOU?

Can you divide this circle into 8 pieces (or sections) by making only 3 lines?



Attach the solution to your business card or letterhead and mail to ACME. If you're right, we'll send you a "Genius Award" for your accomplishment!

**Relax each month with the ACME "Problem Corner"**

of the cross. The surfaces should be smooth, free from pits and ripples. If dust seal retainers are damaged, replace assembly.

3.—Examine roller bearings in bushings. Bearings that have operated on a worn cross assembly should be replaced. Bearings should have a uniform appearance and should roll freely inside bushings.

### Assembly:

1.—Force fibrous universal joint grease between the rollers in all four bushings. Fill the reservoirs in ends of cross.

2.—Place cross in propeller shaft yoke and insert roller bearing assemblies in yoke.

3.—Press roller and bushing assemblies into yoke while guiding the cross into both bushings.

4.—Press until both bushings retainers can be installed in grooves in bushings.

5.—Position bushings on cross and install retainer strap to hold bushings on cross during installation in vehicle.

## Renault 1959 Sales Top \$626 Million

TOTAL sales of Renault of France in 1959 were \$626,191,827, an increase of 22.8% over total sales for 1958, according to Maurice Bosquet, president of Renault, Inc., its American subsidiary.

Increased depreciation provisions resulting from the company's continued expansion program were chiefly responsible for a slight decline in net profit from \$7,581,480 in 1958 to \$6,987,813 in 1959, Bosquet said. As a result of the expansion program, investments in new plant and equipment rose to \$38,897,201 in 1959, compared with \$35,698,381 in 1958.

Bosquet became general manager of automotive operations in the United States last month, moving from Paris headquarters to the New York headquarters of Renault, Inc. Robert E. Valode, vice president and general manager of the subsidiary for the past three years, was transferred to France to supervise all Latin American operations.

# Free\* G-E "Cap-Trap" cuts gas cap losses —saves time, money, customers too!



\*FREE with the purchase of 12 G-E SUBURBAN Headlamps and 1 Space-Saver pack of 10 G-E rear lamps. Available while the supply lasts!

## ★ POWERFUL 2½" MAGNET HOLDS GAS CAPS TIGHT

## ★ FITS FLAT... WON'T CATCH ON LICENSE PLATE

## ★ HAS WITTEK "SURE-TITE" CLAMP

A lost gas cap can cost you anything from a few dollars—to a few customers. But a G-E "Cap-Trap" can eliminate these losses. It keeps gas caps handy, and in the same place every time. You save steps and money. You pay nothing extra for the G-E "Cap-Trap"—and it doesn't come out of your profits! It's free with a purchase of 12 G-E SUBURBAN Headlamps and 10 G-E rear lamps. Ask your General Electric Headlamp supplier about a "Cap-Trap" today.

GENERAL ELECTRIC'S NATIONAL ADVERTISING WILL HELP YOU SELL G-E SUBURBAN HEADLAMPS TWO-AT-A-TIME!

Many thousands of people will see G-E SUBURBAN Headlamp ads this Fall in LOOK, LIFE, POST, SPORTS

ILLUSTRATED, TRUE, MECHANIX ILLUSTRATED and POPULAR MECHANICS. They'll see how a lot of people are actually throwing away both headlamps when one still works—and switching to G-E SUBURBAN Headlamps! These are the only 7" headlamps with the low beam filament *on focus* to give a "spotlight" effect down the right side of the road. They give twice the light where it's needed most. General Electric Co., Miniature Lamp Dept. M-030, Nela Park, Cleveland 12, Ohio.

*Progress Is Our Most Important Product*

**GENERAL**  **ELECTRIC**

## Where Tune-Ups Begin

(Continued from page 58)

to start and perform as it should, are the vacuum advance unit, the automatic choke unit and the throttle return dashpot (4 and 5 in Fig. 1). Comebacks caused by the faulty operation of the advance unit have been caused by faulty vacuum supply and by hardened diaphragms, even though the unit tested out to show no diaphragm leakage. During the distributor test make doubly certain that the available vacuum

can operate the advance unit.

Automatic choke units that appeared to be properly adjusted and fully operational may be left high and dry when tubes supplying heat or vacuum are found to be clogged or detached. Make certain that carbon hasn't closed the line aperture at the manifold.

A properly adjusted throttle dashpot still may fail to keep the engine from stalling if the dashpot unit is weak or inoperative. It only takes a minute or so to make sure, and it is easy to make the replace-

ment at this time while the air cleaner is off.

Resistance-type ignition cables require special handling and a resistance ohms test on occasion (Fig. 6). One comeback for "rough acceleration" proved to be caused by a break in the carbon conductor material near the distributor cap tower where it could not be seen. The engine idled smoothly but the mechanic detected a barely audible "snap" sound. When he pulled the cable for inspection he found a  $\frac{1}{8}$ " hole through the cable insulation. The snap was caused by the spark jumping this gap on idle but apparently breaking down on acceleration to cause a miss. Replacing the one cable did the job.

### And Then This Comeback—

On another comeback an unexplained engine stall after a fast drive following a tune-up turned out to have been caused by the primary cables to the coil being attached in such a manner that they settled to the manifold, the heat softened the insulation and the cables grounded, turning off the ignition. The engine had operated satisfactorily for several days of town driving where the manifold heat was insufficient to melt the insulation, but the first road trip did the trick.

While it should be difficult to say that any one step of a tune-up is more important than the other, since each system is interrelated with the other, it just so happens that the pre-winter preparation of the engine is critical in several points that might get by in operation during other seasons of the year.

While the cooling system is recognized to be an important part of engine operation, at first glance it might be thought the cooling system inspection would be more for the spring tune-up job, but again it must be remembered that the cooling system isn't simply a "cooling" operation: It is more of a "proper operating temperature" maintenance system; therefore it must be as carefully inspected and adjusted for winter as for summer operation.

While anti-freeze protection is the first step for protection of the system itself, the tune-up man must be certain that thermostat action will give a quick warmup and maintain a good operating temperature to protect his tune-up. So he may well delve into the plumbing a bit to make certain the heater and automatic transmission cooling lines are clear and tight at the connec-

**FREE\* WINDPROOF LIGHTER**

**WITH THE IMPROVED Lisle MT3 MUFFLER-TAILPIPE CUTOFF TOOL**

**Lisle GUARANTEED PERFORMANCE AND QUALITY**

**NEW HEAVIER WHEELS cut faster and easier.**

**NEW PIN & LOCK RING holds cutter wheels rigidly in line for positive tracking.**

**NEW RIVETED CONSTRUCTION assures better, longer performance.**

**HANDLES ALL POPULAR SIZES OF TAILPIPES.**

Just clamp on pipe by twisting spring-loaded handle.  $\frac{1}{3}$  revolution covers all the pipe.

\* Free Windproof Lighter for a limited time only. Look for this display card AT YOUR JOBBERS.

**Lisle CORPORATION CLARINDA, IOWA**

TOOL DIVISION • LISLE CORPORATION • CLARINDA, IOWA

*it's the greatest!*

HYDRAULIC  
**BRAKE  
FLUID**



- SURPASSES SAE SPECIFICATIONS 70R1 AND 70R3
- CONFORMS TO FEDERAL SPECIFICATION VV-H-910
- COMPLETELY COMPATIBLE WITH ALL SAE STANDARD BRAKE FLUIDS

Super Heavy Duty Hydraulic Brake Fluid — now, from UNITED. Rigid quality control, during every phase of production, assures continually reliable braking action under severe operating conditions despite wide fluctuations in external and internal temperatures. Developed according to tested formulas for high boiling point, sub-zero fluidity, minimum rubber deterioration, anti-corrosion, and chemical stability — UNITED Brake Fluid has been proven in-the-lab and on-the-road.

Sell SAFETY — stock UNITED. Be one-stop for this Full Line of quality Brake Parts.

**UNITED SUPER HEAVY DUTY AND HEAVY DUTY  
HYDRAULIC BRAKE FLUIDS AVAILABLE IN—**  
12 OUNCE CANS • QUART CANS • GALLON CANS  
2½ GALLON RE-USABLE DRUMS  
5 GALLON DRUMS • 30 GALLON DRUMS • 54 GALLON DRUMS



**UNITED** *Automotive Parts*

UNITED PARTS DIVISION • 1250 W. VAN BUREN ST. • CHICAGO 7, ILL.  
THE ECHLIN MANUFACTURING COMPANY • BRANFORD, CONN.

HYDRAULIC & POWER BRAKE PARTS • BRAKE CABLES • SPEEDOMETER CABLES • IGNITION & ELECTRICAL PARTS

tions, and that the radiator cap is functioning to maintain full pressure and not allowing a vacuum.

Part of a tune-up!!!!?

Well, just try to promise proper engine operation if the cooling system isn't functioning properly!

Of course the complete tune-up for each job varies in detail according to make and model of the car. But after each of these routine adjustments is made, the mechanic must keep thinking just a little ahead of his hands in order to add the extra assurance that the job is

on the road to stay.

It takes extra time, true, but it brings in more money, too, for extra sales always result from extra inspections during the standard job.

And no comeback is ever a bargain for shop or customer.

### Chevy Shrinks Slightly

(Continued from page 61)

entire compartment of all models with a spatter paint. In addition, Biscayne and Bel Air models have a textured rubber floor mat. Im-

palas have vinyl-coated floor and well mats.

The model lineup changes considerably from 1960. There are 20 passenger-car models. A two-door sedan is added to the Impala series and nine-passenger wagons as well as six-passenger are available in the Nomad, Parkwood and Brookwood categories.

Safety items include improved brakes, overlap electric windshield wipers and a new placement for the fuel tank which protects it from road hazards such as hard bumps and flying stones.

Among the improvements in the Corvette are:

A new underbody makes possible a 19% reduction in transmission tunnel width.

New body-to-roof sealing for both hardtops and convertibles more effectively insulates interiors.

An aluminum case for four-speed transmissions. Weight of the unit is thus reduced 15 pounds.

A domed, heavy-duty piston and new cast-iron head for fuel injection engines, producing a compression ratio of 11 to 1.

Increased cooling capacity of the lightweight aluminum cross-flow radiators.

### QUESTION:

## WHICH WATER PUMP IS THE *Champion*-REBUILT?



### ANSWER:

## THE PUMP WITH MORE NEW PARTS INSIDE!

Rebuilt Water Pumps may sometimes look alike—but don't be fooled . . . CHAMPION-REBUILT Water Pumps are all assembly-line processed, thoroughly vacuum-tested and sold with a same-as-new unit guarantee! By actual comparison, Champion-rebuilt pumps contain MORE NEW PARTS including 100% NEW BEARINGS! Every unit contains a NEW SEAL ASSEMBLY and is shipped complete WITH BACK PLATE! Here is a Standard of Quality that others DO NOT EQUAL!

Write for Catalogs and Price Lists



**Champion Parts Rebuilders, Inc.**

4301 W. 69TH STREET

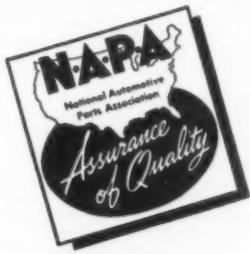
CHICAGO 29, ILLINOIS

J. B. Wagstaff, shown here, Chrysler Corp. vice president and a native of Ethridge, Tenn., has been elected chairman of the Auto Industries Highway Safety Committee, succeeding Charles C. Freed. Victor Holt, Jr., executive vice president of The Goodyear Tire & Rubber Co., and L. L. Wilkinson of Jackson, Miss., newly elected president of the National Tire Dealers and Retreaders Association, are vice chairman and secretary-treasurer, respectively. M. R. "Bud" Darlington, Jr., continues as managing director. In addition to Freed and the officers, board members elected to the executive committee include: Roy Abernethy, vice president, automotive distribution and marketing, American Motors Corp.; E. F. Tomlinson, president of the B. F. Goodrich Tire Co.; and Birkett Williams, president of the National Automobile Dealers Association.





## NEED A *New Britain* TOOL? CALL YOUR NAPA JOBBER!



Any Tool you ever need is no further away than a 'phone call to your NAPA Jobber! No need to wait for service! Check YOUR Tool Kit right now. Just pick up the 'phone and get that New Britain Tool immediately that you have been needing or intending to buy. It will make money for you. Remember! The cost of Tools you use in your work is deductible from your income tax.

THE NEW BRITAIN MACHINE COMPANY  
NEW BRITAIN • CONN.

***New Britain***  
**HAND TOOLS**

# HELPFUL BOOKLETS FREE!

On this and the following pages is an excellent selection of free Automotive literature. List numbers of those desired on the coupon and mail to SOUTHERN AUTOMOTIVE JOURNAL.

**103 SAMPLES, BOOKLETS, AND CATALOG SHEETS**—describing DL Handi-Cleaner available on request. DL Products, Inc., Banite Bldg., Buffalo, N. Y.

**108 ELECTRICAL EQUIPMENT FOR 1960 PASSENGER CARS**—New booklet, fully illustrated covers description of units as well as servicing and adjustments of charging circuit, starting circuit and ignition circuit. Also covers D.C. and A.C. Generators. Delco-Remy Div., Technical Literature Section, Anderson, Ind.

**111 SELECTION GUIDE OF SPECIALIZED LUBRICATION TOOLS**—Set up in chart form covering 19 makes of cars and 8 specialized tools. Especially helpful to inexperienced operator, making it practically impossible to select the wrong gun or accessory for any given operation. Also has chassis drawing pointing out every part named. Form No. 38-808. Alemite Div., Stewart Warner Corp., 1826 Diversey Parkway, Chicago 14, Illinois.

**112 SOUND SLIDE FILM**—Entitled "Automotive Wheel Bearings" is the first in a series of audio-visual aids designed to provide bearing salesmen, servicemen and replacement parts men with practical and useful information on various applications for ball, roller and engine bearings and on oil seals. Federal-Mogul Service, 11031 Shoemaker Ave., Detroit 13, Mich.

**125 STANDARD DUTY GENERATOR REGULATORS**—A 16-page 8½ x 11 inch booklet covering the operation and maintenance of Delco-Remy regulators. (62 pictures) Contains illustrations showing various steps of adjustment. Will help automotive electricians understand and service regulators. Delco-Remy Service Department, Anderson, Indiana.

**129 NEW BLUE RIBBON ILLUSTRATED PRODUCTS CATALOGUE**—describing and displaying the complete line of refinishing, polishing and chemical specialty products. International Metal Polish Co., 1910 Quill St., Indianapolis, Ind.

**134 MOOG RINGLINER**—Illustrated piston ring catalog carries listings and product information on complete line of Moog cast iron, partial chrome and Chrome-Plus lines. Moog Industries, Inc., 6650 Easton Ave., St. Louis 14, Mo.

**138 PLUG CHEK**—A colorful wall banner showing condition of spark plugs under various driving conditions. This service tool is designed to assist service men in diagnosing spark plug heat range problems. The Electric Autolite Co., Toledo 1, Ohio.

**141 MOOG STREAMLINER CATALOG**—Carries exploded views, detail illustrations and listings of leaf springs, main leaves, spring parts, shackles, shock links, tie rod ends, drag links, king bolts, coil springs and other coil action parts for cars and trucks. Moog Industries, Inc., 6650 Easton Ave., St. Louis 14, Mo.

**144 RADIATOR SERVICING**—New 32 page booklet entitled "New Blueprint for Profits" shows how any car dealer, filling station or auto repair shop may go into the radiator servicing business. It covers procedure for setting up radiator service department; shows latest compact shops, testing, cleaning and repairing units, and includes a complete price list and specification chart. It describes methods of financing, etc. which the manufacturer makes available to customers, factory training school, guarantees, etc. Inland Mfg. Co., Dept. B-138, 1108 Jackson St., Omaha 2, Neb.

**146 HAND CRIMPING TOOL**—Describes circular strips and also crimps Rajah terminals to ignition cable. The Rajah Co., 35 Verona Ave., Newark, N. J.

**155 MAKE MORE SALES ALL OVER THE LOT**—Attractive 2-color folder shows how to increase gas, oil and TBA sales and turn new customers into steadies. Pullman Vacuum Cleaner Corp., Dept. P, 25 Buck St., Boston 15, Mass.

**159 FACTS ABOUT STORAGE BATTERIES**—32 page booklet includes informative information on car, tractor and boat batteries. Explains the storage battery, electrical system, battery chemistry and construction plus other "How To Do It" information. Exide Automotive Division, P. O. Box 6266, Cleveland, Ohio.

**166 CYLINDER HEAD STOCK REMOVAL CHART**—A handy pocket size showing year and model of car, standard compression and the amount of cylinder head stock removal necessary to attain the increased ratio. Storm-Vulcan, Inc., 2225 Burbank St., Dallas 35, Texas.

**168 CRANKSHAFT GRINDER MANUAL**—A colorful 8-page manual containing engineering, construction and operation details of the new Storm-Vulcan model 15-A Crankshaft Grinder. It is well illustrated for easy understanding, and describes fully the special features and advantages of the new 15-A Crankshaft Grinder designed for fast production and precision. Storm-Vulcan, Inc., 2225 Burbank St., Dallas 35, Texas.

**173 HYDRAULIC PARTS**—Complete master catalog of the complete line of Eis hydraulic parts. Lists and illustrates the

complete line of repair kits, hoses, stop-light switches, brake-master and wheel assemblies. Information complete up to 1957. Eis Automotive Corp., Middletown, Conn.

**183 BADGE-O-RAMA PROFIT KIT**—83 piece profit kit of eye-catching badges, a different one for each week of the year given free with Pullman Vacmobile. Pinned to attendant's shirt these silent salesmen promote seasonal TBA items at customer's eye level. For sample badge and full information write Pullman Vacuum Cleaner Corp., 25 Buick St., Boston, Mass., Dept. SAJ.

**185 SERVICE ENGINEERING BROCHURE**—A new brochure comprised of 14 Service Engineering articles covering oil consumption problems, ring problems, oil control problems peculiar to the modern high compression-high vacuum engines, piston and piston ring nomenclature and several articles on scuffed rings and how to avoid scuffing and scoring. Perfect Circle Corp., Hagerstown, Ind.

**186 FILTER CATALOG**—Offers details on complete line of oil, air, fuel and cooling system filters. Lee Filter Corp., Talmadge Rd., Edison, N. J.

**189 GENERAL PAINTING INSTRUCTIONS**—Form 5723 covers finishing of passenger cars or commercial vehicles in lacquer or enamel finish. Gives full details for any surface including preparation of same. Ditzler Color Division, 8000 W. Chicago Ave., Detroit 4, Mich.

**190 COOLING SYSTEM CLEANING**—Bulletin titled "Cooling System Maintenance an Open Door to Greater Profits," describes Jenny Steam Thoro-Purge, the most modern and thorough method of reverse flushing cooling systems; also shows increased profits possible from its use. Write for Bulletin STP-5, Homestead Valve Manufacturing Co., P. O. Box 99, Coraopolis, Pa.

**193 WIRE & CABLE CATALOG**—A condensed catalog of electric wire and cable, complete with specifications for all passenger cars. The Electric Autolite Co., Toledo 1, Ohio.

**195 1958 SALES "PORTFOLIO"**—Contains catalog sheets on YANKEE'S new "Duet Series" Mirrors, Boat Trailer Lamps and Water Ski Mirror, All-Chrome Truck Mirrors, mirrors for foreign and sports cars, and other service items Kalamazoo punched for filing. Yankee Metal Products Corp., Norwalk, Conn.

**197 BATTERY TESTING PROCEDURE**—Fully illustrated booklet gives step by step outline of fast, simple and accurate battery testing procedure. Also gives list of recommended testing equipment to have on hand. Delco-Remy Div., Technical Literature Section, Anderson, Ind.

**205 HOW TO INCREASE ENGINE LIFE**—90%—Illustrated booklet tells how to reduce wear to moving parts and insure better performance from automobiles or trucks by explaining the air filters—the vital piece of equipment through which an engine breathes. Fram Corp., Rumford Post Office, Providence 16, R. I.

**208 SAFE PARTS CLEANING FOR CRITICAL PARTS**—Booklet describes 3 safe ways to clean parts—pump driven filtered hose; air agitated soaking tank; and Jet air gun. Practical Mfg. Co., 2840 4th Avenue S., Minneapolis, Minn.

**209 EXTRA PROFITS WITH STEAM CLEANERS**—20-page booklet showing several models of Hypersure Jenny steam

# INFORMATION CENTER



BOOKLETS • NEW PRODUCTS • ADVERTISEMENTS

**Help yourself to free literature  
and more details on any products  
mentioned in this issue.**

Instead of writing a dozen different manufacturers for free literature and more information on parts, equipment, accessories or services, just insert the appropriate key numbers of the New Product or Booklet listings in which you are interested. For more information on advertisements, just indicate the page number on which it appears.

Be sure to print or write legibly your name and address—drop it in the nearest mail box and

## SAJ pays the postage!

(This card not valid after 90 days.)

OCTOBER 1960

Send me these FREE Catalogs and Bulletins . . . Fill in numbers

I want details on these New Products . . . Fill in numbers

Send more information on following advertisements

(List page No. Also company name if more than one ad on page)

 .....  .....  .....

My Name ..... Position .....

Company Name .....

Type of Business .....

Street .....

City ..... Zone ..... State .....

OCTOBER 1960

Send me these FREE Catalogs and Bulletins . . . Fill in numbers

I want details on these New Products . . . Fill in numbers

Send more information on following advertisements

(List page No. Also company name if more than one ad on page)

 .....  .....  .....

My Name ..... Position .....

Company Name .....

Type of Business .....

Street .....

City ..... Zone ..... State .....

These cards  
can help  
you get  
valuable  
information



Postage  
Will be Paid  
by  
Addressee

No Postage  
Stamp Necessary  
If Mailed  
in the  
United States

**BUSINESS REPLY CARD**

FIRST CLASS PERMIT NO. 582, SEC. 34.9, P. L. & R., ATLANTA, GA.

**Southern Automotive Journal**  
806 PEACHTREE ST., N. E.  
ATLANTA 8, GEORGIA

Postage  
Will be Paid  
by  
Addressee

No Postage  
Stamp Necessary  
If Mailed  
in the  
United States

**BUSINESS REPLY CARD**

FIRST CLASS PERMIT NO. 582, SEC. 34.9, P. L. & R., ATLANTA, GA.

**Southern Automotive Journal**  
806 PEACHTREE ST., N. E.  
ATLANTA 8, GEORGIA

**HELPFUL  
BOOKLETS  
FREE!**

cleaners, and illustrating many profitable usages of equipment in automotive and allied industries. Also folder on Cooling System Maintenance. Hyppressure Jenny Div., Homestead Valve Mfg. Co., P. O. Box 348, Coraopolis, Pa.

**211 SERVICE TOOL CATALOG**—Illustrates and describes more than 70 tools designed to solve specific problems for the repairman. Each helps to speed up jobs, make operations easier, cut shop costs. Hastings Mfg. Co., Hastings, Mich.

**214 THE WHYS AND HOWS OF VOLTAGE REGULATORS**—Explains in simple language, every detail of Voltage Regulators—how they work, why they are important, how to adjust and service them. In 16-page handy pocket size edition, with many working drawings to clarify and illustrate the text. Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

**221 NEW REPAIR KIT FOLDER**—Gives information on Jack-Pack automatic transmission sealing line (overhaul kits, gasket sets, lip seal sets, rubber sets, sealing rings); Noz-L-Pack automatic nozzles repair kits for Buckeye and OPW nozzles and complete line of Jack-Pack jack repair kits and jack oil. For free copy write: Jack-Pack Mfg. Co., 2115 N. Mariana Ave., Los Angeles 32, Calif.

**222 "WHAT PRICE QUALITY"**—Read how ignition parts should be made and why. "WHAT PRICE QUALITY" tells the story of the making of quality ignition parts. Written in non-technical language. Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

**223 DEGREASING EQUIPMENT AND CLEANING COMPOUNDS**—Full information included in our catalog sheets for every automotive or industrial usage. Practical Mfg. Co., 2840 4th Ave. S., Minneapolis, Minn.

**225 THE "CAMEL COOLIE" VENTILATED SPRING CUSHION**. Four color catalog page is now available. This newest product is hailed by the industry as a welcome addition to the Camel line. H. B. Egan Mfg. Co., Muskogee, Okla.

**226 OIL LEAK DETECTOR**—Bulletin shows how hooking up the bearing oil leak detector reveals internal engine conditions, uncovers main, rod or cam bearing wear, plugged oilways, starved bearings, before tearing down the engine. Also describes how the detector checks the completed overhaul and pre-lubricates moving parts before turning over the engine. Illustrates two sizes with maintained oil pressure—one for cars, one for larger truck engines. Federal-Mogul Service, 11031 Shoemaker, Detroit 13, Mich.

**227 PROFITABLE ENGINE REPAIR**—6 pages entitled "Profit Pak" shows how to get started profitably and at low investment cost in engine repair service; how to equip to make 17 essential A.E.A. tests, etc. Sun Electric Corp., Dept. PB, 6331 N. Avondale Ave., Chicago 31, Ill.

**228 ENVELOPE STUFFER**—Describes in detail the starting fluid, fire extin-

guisher, spot remover and penetrating oil now available from Spray Products Corp., P. O. Box 584, Camden 1, N. J.

**230 SIOUX TOOLS**—New Catalog No. 58. Sixty pages. New items include Air Impact Wrenches, Air Screwdrivers, Valve Cleaners, All-Angle Drill Kit, Electric Screwdriver sets, and Pelican Nut Accumulators for use with impact wrenches. Also complete information on Valve Face Grinding Machines, Valve Seat Grinders, Electric Drills, Hole Saws, Electric Bench and Portable Grinders, Wire Wheel Brushes, Flexible Shaft Machines, Electric Sanders, Abrasive Discs, Electric Polishers, Electric Impact Wrenches, Electric Saws and Flat Sanders. Albertson & Company, Inc., 3100 Lowell Avenue, Sioux City 2, Iowa.

**235 METHODS OF TUBELESS TIRE REPAIR**—An authoritative brochure with illustrated steps on the permanent repair of tubeless tires, using either the hot or cold vulcanizing methods. Prepared from H. B. Egan Mfg. Co., P. O. Box 1406, Muskogee, Okla.

**238 HOW TO OVERLOAD SAFELY**—Brochure gives tips on safe overloading. Describes the Air Lift butyl cylinders that fit inside the rear coil springs or that come equipped with own coils and are installed between leaf spring and frame. Air Lift Co., 2330 W. Main St., Lansing 2, Mich.

**239 TEST REPORT**—"Speed Age" reports on the Air Lifts which can give air ride on any make or model. The product gives complete details on installation and a resume of the tests endured by air lifts. Air Lift Co., 2330 W. Main St., Lansing 2, Mich.

**242 AUTOMOTIVE LINES**—4-page booklet lists all of the Solder Seal chemical tools, giving part numbers, size, case contents, list and dealer prices. Radiator Specialty Co., 1400 W. Independence Blvd., Charlotte 8, N. C.

**243 HOW TO SELL MORE OIL, OIL FILTERS, LUBRICATION & TBA ITEMS**—12-page illustrated booklet gives profitable tips on increasing your sales and making every customer a happy customer. Pullman Vacuum Cleaner Corp., 25 Buick St., Boston 15, Mass.

**244 SPARK PLUG INSPECTION CHART**—Form No. M-1433—A full color chart that can be tacked or taped up onto walls showing both normal and abnormal appearance of spark plugs plus tips on how to get top performance from spark plugs. The Electric Autolite Co., Toledo, Ohio.

**254 MASTER BRAKE SERVICE GUIDE**—Contains fully illustrated, step-by-step instructions for adjusting and refining the twenty different types of hydraulic wheel brakes used on passenger cars and light and medium trucks and buses. World Bestos Div., New Castle, Ind. Attn: Sales Prom. Mgr.

**255 TOOL CATALOG "W"**—112 pages gives pictures, description and specifications of the complete Snap-On Tool line of merchandise. Snap-On Tools Corp., Kenosha, Wis.

**257 RUBBER PRODUCTS**—A condensed catalog designed for parts reference work just released. It contains handy simplified identification and illustrations of floor mats, pedal pads, motor mounts, and rubber bushings. Doan Mfg. Co., 1725 London Road, Cleveland 12, Ohio.

**260 BODY REPAIR, RECONDITIONING & REINFORCING**—4 page catalog sheet and envelope stuffer describes FIL-ERLITE plastic paste and FILLERITE System. Includes uses, package sizes, specifica-

tions and instructions for applying. Plastics Division, Baird Dynamic Corp., 1700 Stratford Ave., Stratford, Conn.

**264 TIRE VALVES, EQUIPMENT AND TOOLS**—Complete jobber catalog describes the entire line; giving numbers, description, packaging and weight of each item. Acme Air Appliance Co., Inc., 205 Newman St., Hackensack, N. J.

**265 TIRE VALVE WALL CHART**—Comparison chart shows application of tubeless tire valves by car name. Also shows the interchange stock numbers of other manufacturers. Acme Air Appliance Co., Inc., 205 Newman St., Hackensack, N. J.

**266 COMPRESSOR CATALOG**—16-page catalog gives full details on the complete compressor line, including specifications, diagrams, uses. Champion Pneumatic Machinery Co., 825 N. Pleasant St., Princeton, Ill.

**268 HI-PRESSURE WASHERS**—4-page brochure gives specifications, description and uses of the washers offered by Champion Pneumatic Machinery Co., 825 N. Pleasant St., Princeton, Ill.

**271 AUTOMOTIVE CHEMICALS**—8 page catalog gives description of each item in the Permatex line giving uses, parts numbers and sizes. Permatex Co., Inc., 300 Broadway, Huntington Station, New York, N. Y.

**275 PISTON RING**—16-page booklet contains a description of the Modern Power features of Ramco Piston Rings complete with illustrations. Ramsey Corp., P. O. Box 513, St. Louis 66, Mo.

**283 CARBURETOR WALL CHART**—Three color 17" x 22" trouble shooter chart locates the sources of seven common types of carburetor trouble and gives specific causes and remedies. Hygrade Products Div., Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

**284 "HOOFBEATS"**—A complete assortment of engineering bulletins covers practically all problems encountered in today's engines, and the proper care and maintenance to prevent or overcome these problems. Mustang Engine Div., 315 International Road, Garland, Texas.

**286 LISLE SPECIALTY AUTOMOTIVE TOOLS AND GARAGE CREEPERS**—A 16-page tool catalog (#303) featuring Lisle quality Ridge Reamers, Cylinder and Brake Hones, Glaze Breakers, and other specialty automotive tools. This catalog also features Lisle "Jeepers Creepers" and new "Hi-Lo" and "Lo-Boy" creeper seats. Lisle Corp., 888 Main St., Clarinda, Iowa.

**287 LISLE HYDRAULIC BRAKE PARTS & CABLE CATALOGS**—Complete 96-page catalog covering Lisle Brake Cylinders, Repair Kits, Hoses, Fluid and Parts for trucks and passenger cars. Complete catalog on Lisle Parking Brake Cable assemblies for passenger cars and trucks Lisle Corp., 888 Main St., Clarinda, Iowa.

**288 LOTION-TYPE SKIN CLEANER**—Illustrated brochure gives you six pages of instructions on how you can cut hand-cleaning time and help prevent dermatitis. Gojer, Inc., Box 991, Akron, Ohio.

**289 CREME HAND CLEANER**—3-page booklet contains illustrated information on how you can save 75% on clean-up costs and safeguard employees against dermatitis and other painful skin irritations. Includes listing of other cleaning preparations, money-saving dispensers, and convenient brackets. Gojer, Inc., Box 991, Akron, Ohio.

**HELPFUL  
BOOKLETS  
FREE!**

**293 MUFFLER INSTALLATION GUIDE—**New 1959 Muffler Installation Guide includes photos and easy-to-read instructions for removing and replacing mufflers. Special suggestions and short cuts are given for particular car makes and models to provide a thorough guide for all types of installations. Walker Mfg. Co. of Wisconsin, Racine, Wis.

**295 RETAINING RING AND PLIER SPEC SHEET—**This helpful catalog sheet lists the pliers required for given sizes of rings; as well as indicating pliers needed for a given Shaft diameter or Bore diameter. Diagrams of Ring applications are shown on large and small equipment. The proper pliers for automotive needs are listed also. Proto Tool Co., Box 3519 Terminal Annex, Los Angeles 54, Calif.

**296 METRIC TOOL CATALOG SHEET—**Described are two new sets of Metric Sockets and attachments which meet a need on the professionals to service the mushrooming number of foreign cars now on the American highways. Proto Tool Co., Box 3519 Terminal Annex, Los Angeles 54, Calif.

**297 SCREW DRIVER CATALOG NO. SD 56—**Colorful catalog showing over 400 different sizes and styles of hand tools. Screw Drivers, Nut Drivers, Pliers and Wood Chisels, are presented in clear pictures and tables showing complete dimensions. Merchandising Displays, helpful Screw Charts and standardization tables are also shown. Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.

**298 SOLDERLESS TERMINAL CATALOG NO. T 70—**Over 60 different sizes and styles of Solderless Terminals are illustrated in a beautiful 4 color catalog. Actual size illustrations plus blue print type of drawings, with all dimensions clearly marked, make for easy selection of the proper Terminal, for every need. Regular, Quick Connect and the new Insulated type of Solderless Terminals are shown. A Quick Reference Card with actual samples mounted, is also available. Vaco Products Co., 317 E. Ontario St., Chicago 11, Ill.

**300 VALVE CATALOG—**No. 59 gives 29 pages of alphabetical valve listings, and also includes interchange list and numerical list. Manley Valve Corp., 1523 Fairmount Ave., Philadelphia 30, Pa.

**305 DUAL-PURPOSE TIRE REPAIR PATCHES—**Illustrated catalog describing new Self-Vulcanizing Dual-Purpose Patches. Metal dispenser cabinet for shop use—patches packed in handy dispenser cartons. Monkey Grip Sales Co., P. O. Box 6170, Dallas 22, Texas.

**306 NEW FRICTION TAPE DISPLAY—**Illustrated catalog covering entire line of Monkey Grip Friction Tape and Plastic Electrical Tape, features new merchandising rack for carded Friction Tape. Also, counter display containers for boxed tape. Monkey Grip Sales Co., P. O. Box 6170, Dallas 22, Texas.

**307 TIRE REPAIR MATERIALS, AUTO MATS, AND AUTOMOTIVE RUBBER PRODUCTS—**New complete 24-page catalog covering Monkey Grip Products for the Automotive Trade. Colorful, illustrated and informative. Monkey Grip Sales Co., P. O. Box 6170, Dallas 22, Texas.

**308 TUBELESS TIRE REPAIR PLUGS—**Molded rubber plugs for on-the-wheel puncture repairs in Tubeless Tires are described in new catalog. Plugs are available in complete shop assortment kit, consumer kit, and packages according to size. Monkey Grip Sales Co., P. O. Box 6170, Dallas 22, Texas.

**311 TUNE UP SPECS—**8-page booklet containing latest 1959 ignition tune up specifications for trucks, small engines and tractors is being offered free by Standard Motor Products, Inc., 37-18 Northern Blvd., Long Island City 1, N. Y.

**313 NEW IGNITION BOOKLET FOR JOBBERS—**Entitled "What do you EXPECT from Ignition?" presents new and valuable information on the growth and profit possibilities of ignition, as well as some interesting sidelights on the use of ignition as a business stimulator for other wholesalers lines. Shurhit Products, Inc., Waukegan, Ill.

**315 BETTER IGNITION by Delco-Remy—**16-page, 8½x11-inch booklet covering theory, operation and maintenance of Delco-Remy ignition equipment. Contains 71 illustrations. Will help automotive electricians understand and service ignition equipment. Delco-Remy Service Department, Anderson, Ind.

**316 20,000 VOLTS UNDER THE HOOD—**Covers the basic operation of the electrical units in the ignition circuit. It shows how battery voltage is built up to 20,000 volts at the spark plug. Delco-Remy Division, Anderson, Ind.

**317 THE CRANKING CIRCUIT—**This shows the units in the cranking circuit and how they operate together as a team to crank the modern automobile. Written in simple non-technical terms so it can be easily understood. Delco-Remy Division, Anderson, Ind.

**320 NEW DEALER CATALOG OF MOTOR REBUILDING EQUIPMENT—**Features the complete Storm-Vulcan jobber line of engine rebuilding machines. Attractively printed in two colors, punched and slotted for inclusion in jobber salesman's catalog. Storm-Vulcan, Inc., 2225 Burbank St., Dallas 35, Texas.

**323 BRAKE LINING—**A new 18-page condensed catalog listing brake lining recommendations for all popular passenger cars, commercial cars, etc. Vehicles are listed by year and model. Recommendations are made both for riveted and for bonded lining. World Bestos Corp., New Castle, Ind. Attn: Sales Prom-Mgr.

**325 POWER STEERING REPAIR KIT CATALOG—**Introduces Everhot's new line of KWICKY POWER STEERING REPAIR KITS. KITS contain all the parts necessary for efficient service of all GM, Ford, Chrysler, American Motors and Studebaker-Packard models, 1952 through 1960. Easy-to-follow instructions and exploded illustrations in every KIT. New catalog contains complete alphabetical listings by car make, model and year; listings by KWICKY KIT number; Interchange Data, and Exploded Illustrations. ASK for Catalog PK-260. Everhot Products Co., 2001 W. Carroll Ave., Chicago 12, Ill.

**326 TOOL CHESTS & CABINETS—**Folder gives prices, descriptions, dimensions, etc. of the complete line of quality built tool chests, cabinets, porta-cabs and tool-dexs. Huot Mfg. Co., 550 N. Wheeler Ave., St. Paul 4, Minn.

**327 SHOP INFORMATION CHART—**Colorful 9x6 chart includes easy-to-read information necessary for machine shops, such as decimal equivalents, general tap information, tap drills for pipe taps, American standard machine screws. Huot Mfg. Co., 550 N. Wheeler Ave., St. Paul 4, Minn.

**329 AUTOMOTIVE EQUIPMENT CATALOG**—Describing the complete line of Graco automotive lube equipment, supplies and accessories. Covering supply pumps, overhead service reels, motor oil dispensers, portable equipment, ATF dispensers, undercoaters, bearing packers, transfer pumps, waste oil receivers, dispensing guns, control valves, adapters, nozzles, hand operated units, hose, hose assemblies and fittings. Write for catalogs 103 and 204. Gray Co., Inc., Graco Square, Minneapolis 13, Minn.

**330 POWER CLEANING EQUIPMENT—**Brochure describing applications and specifications of Graco Hydra-Clean units, power washing spray products. Covers full line including detergents and accessories. Also describes profit-making ideas and uses. Gray Co., Inc., Graco Square, Minneapolis 13, Minn.

**333 3M AUTOBODY REPAIR AND REFINISHING SYSTEM—**Colorful 20-page booklet contains sections devoted to metal preparation, featheredging, masking, pre-paint sanding and the use of adhesives and sealers. Sanding and masking recommendations are also made for working with acrylic lacquers, etc. Also attention is given to special tools, such as molded discs, and disc pads, pressure-sensitive discs, cones, mandrels, and backup assemblies. Minnesota Mining & Mfg. Co., Dept. F/O-107, 900 Bush Ave., St. Paul 6, Minn.

**336 NEW FILKO IGNITION PARTS CATALOG—**Big 160-page catalog catalog contains complete listings of all Filko Ignition Replacement Parts for practically every make and model of car, truck, bus and tractor. New simplified listings make the new Filko Catalog exceptionally easy to use. F & B Mfg. Co., 4248 W. Chicago Avenue, Chicago 51, Ill.

**337 AUTOMOTIVE PRODUCTS GUIDE—**Illustrated 11"x17" wall chart gives full line of Permatex automotive chemicals plus the application of each. Includes parts numbers, sizes and prices. Permatex Co., Inc., 300 Broadway, Huntington Station, Long Island City, N. Y.

**339 COMPACT CAR COMPARISON—**New booklet gives complete specifications comparing the Corvair, Falcon, Valiant, Lark and Rambler. The book provides complete details on performance, estimates, including fuel consumption, acceleration and top speeds as well as details on optional equipment and both automatic and manual transmissions. The Electric Autoilite Co., Toledo 1, Ohio.

**340 OIL, AIR, FUEL AND WATER FILTERS—**Valuable information on oil, air, fuel and water filters. Complete selection of material to help you sell, install and service filters. Fram Corporation, Providence 16, R. I.

**345 HYDRAULIC BRAKE WALL CHART—**Spiral bound listing up-to-date parts information for passenger cars and trucks, including listings for master and wheel cylinder repair kits, stop light switches and brake hoses. Eis Automotive Corp., P. O. Box 701, Middletown, Conn.

**346 INSTRUCTION PAMPHLET FOR PLASTIC PUTTY FILLERS—**Colorful, illustrated easy-to-follow guide gives step-by-step body repair instructions using CLAW-PLAST fillers. H. Clausen & Co., Inc., Dept. SAJ, 1055 King George Road, Fords, N. J.

**361 NEW "QUICK REFERENCE" GASKET CATALOG—**Complete, easy-to-find listings of Fel-Pro Gaskets for practically all makes and models of cars, trucks, tractors, buses, etc. New cataloging style makes gasket selection simple and easy. Write for your free copy today. Fel-Pro Products Mfg. Co., 1508 Carroll Ave., Chicago 7, Ill.

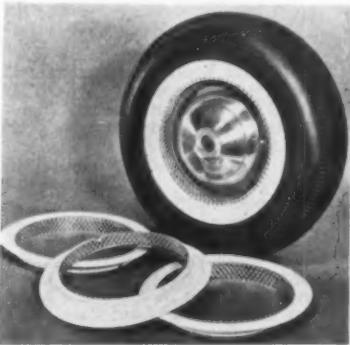


## NEW PRODUCTS AND CATALOGS

### 800—Tire, Wheel Accessory

"Spats," a tire and wheel accessory introduced by Aske-Wood, Inc., 1617 Fisher Bldg., Detroit 2, Mich., is designed for use with standard black tires to give the appearance of white sidewall tires with the beauty of wheel covers.

A combination of white natural rubber and nickel stainless steel rings, the



accessory is installed like a wheel cover and reportedly will outlast several sets of tires. "Spats" are available for all makes and models of cars, trucks and mobile homes equipped with 13", 14" or 15" wheels.

Want more info? Use coupon on page 99 and you will get it!

### 801—Point-Setting Tool

Time of setting distributor breaker point gaps reportedly can be reduced by two thirds with the "No. 2110 Snap Gap" point-setting tool announced by Herbrand Division, Bingham-Herbrand Corp., Fremont, O., which is said to eliminate engine rotation, removal of the distributor and all other time-consuming methods of establishing the widest point gap position.

The professional mechanic's set consists of 5 micro-precision split rings covering practically all American-made cars, and a complete range of special feeler gauges and companion adapters which consistently establish accurate breaker point gaps to the car manufacturers' specifications, it was claimed. After removing distributor cap and rotor, the correct micro-ring is slipped over the cam, forming a perfect circle and reportedly eliminating all need to adjust cam position. With the ring in place, the points will be at their widest gap, regardless of the engine's rotational position. The special feeler gauge gives the desired final gap after adjustment, while the adapter automatically compensates for the micro-ring thickness. Dual breaker points

### 802—Spray Paint Catalog

An 8-page aerosol spray paint catalog, published by Plasti-Kote, Inc., 9801 Harvard Ave., Cleveland, O., features full-color illustrations of push-button spray paint products for use in the home, for automobile and boat, on the farm and in industry, and includes information on operating features, color selections and assortment numbers. Special pages are devoted to fast-drying lacquers, plastic sprays, hammer finish sprays and special spray products, including rust solvent, ignition spray, degreaser and motor cleaner, among others.

Want more info? Use coupon on page 99 and you will get it!

**YOUR HANDS** are your most valuable tools  
keep them in good "working" condition



No matter how dirty your hands get on the job — please the women in your life — come home with "DL-CLEAN" hands!

There's absolutely nothing that cleans hands as clean as DL. Try it — see how fast DL works, how quickly grease, grime, oil, even dirt imbedded under fingernails, dissolves, and wipes off or rinses off! DL contains LANOLIN to leave hands soft, HEXACHLOROPHENE to guard cuts and bruises against infection.

DL is equally effective, used with or without water!

For samples call your jobber or write us  
Dept. SAJ-10-18

**DL PRODUCTS, INC.** Buffalo 4, N.Y.

Canadian Offices: 236 Norseman St., Toronto 18, Ont.

### 803—Shock Absorbers

A full line of "Royal Ride" shock absorbers announced by Monroe Auto Equipment Co., Monroe, Mich., reportedly includes double-action efficiency, pre-sealed construction, direct-action, precision operation, oversize fluid capacity and a specially molded rubber seal.

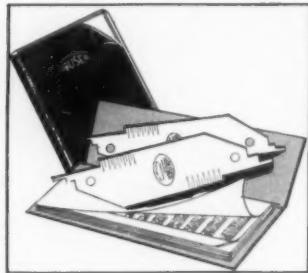
The standard line is the original-equipment type and carries a new-car (or 90-day) 4,000-mile guarantee. The extra-duty type has over 50% greater fluid capacity, it was claimed, 50% larger piston rod and approximately 100% greater working capacity.

Want more info? Use coupon on page 99 and you will get it!

### 804—Pocket Gauge Kit

Any mechanic reportedly can do a 100% accurate job of measuring the exact amount of shimming needed to restore original factory-specified valve spring tension on re-ground or worn valves with a simple, foolproof wallet-sized kit announced by Houser Engineering & Mfg., Inc., Bluffton, Ind., and said to do the job in 5 minutes, even on double counterbore heads.

No disassembly is needed with the "No. 665" kit, which instantly shows how much material has been lost and which valve spring shims (.020" or .035") are needed to restore it. Designed for practical, everyday use, the leather-like plastic kit fits easily into



the mechanic's pocket. One side holds 2 lifetime steel spring gauges in transparent pockets for easy selection, while the other side contains a quick-reference selector chart for determining proper gauge setting and shim requirements. Large, easy-to-read tables show all popular passenger-car, farm tractor, truck and commercial applications.

Want more info? Use coupon on page 99 and you will get it!

## RELAX... you're safer with Imco brakes. You'll make more profit too!



THE IMCO MFG. & SALES CORP.

BALTIMORE 2, MARYLAND

### 805—Idler Arm Kits

Anti-friction, precision-manufactured idler arm kits, announced by O.E.M. Products Co., 5296 Northwest Highway, Chicago 30, Ill., designed for each model of General Motors, Ford and Chrysler cars, as well as others, are said to be easily installed without elaborate equipment.

Front suspension ball joint kits, also announced by the company, are said to be self-adjusting, quickly and easily installed, allowing ball joints to operate freely, keeping out dirt and moisture and sealing in lubricants. They reportedly remove the metallic sound from within the ball socket, cushioning the weight of the car on neoprene rubber. Kits hold accurate front-end alignment by removing looseness from ball joint and are said to make for safer, more dependable steering.

Want more info? Use coupon on page 99 and you will get it!

### 806—Squeegie Scraper

A year-round, triple-action squeegie scraper, announced by Sinko Mfg. & Tool Co., 7310 W. Wilson Ave., Chicago 31, Ill., features a 5½" scraper and squeegie for removal of snow, sleet, ice and mist and a power grind handle for chipping through ice.

"Flex-E" is constructed of plastic and reportedly will not scratch on the glass surface. Designed to be carried in the glove compartment, it is available in choice of colors.

Want more info? Use coupon on page 99 and you will get it!

### 807—Parts Catalog Set

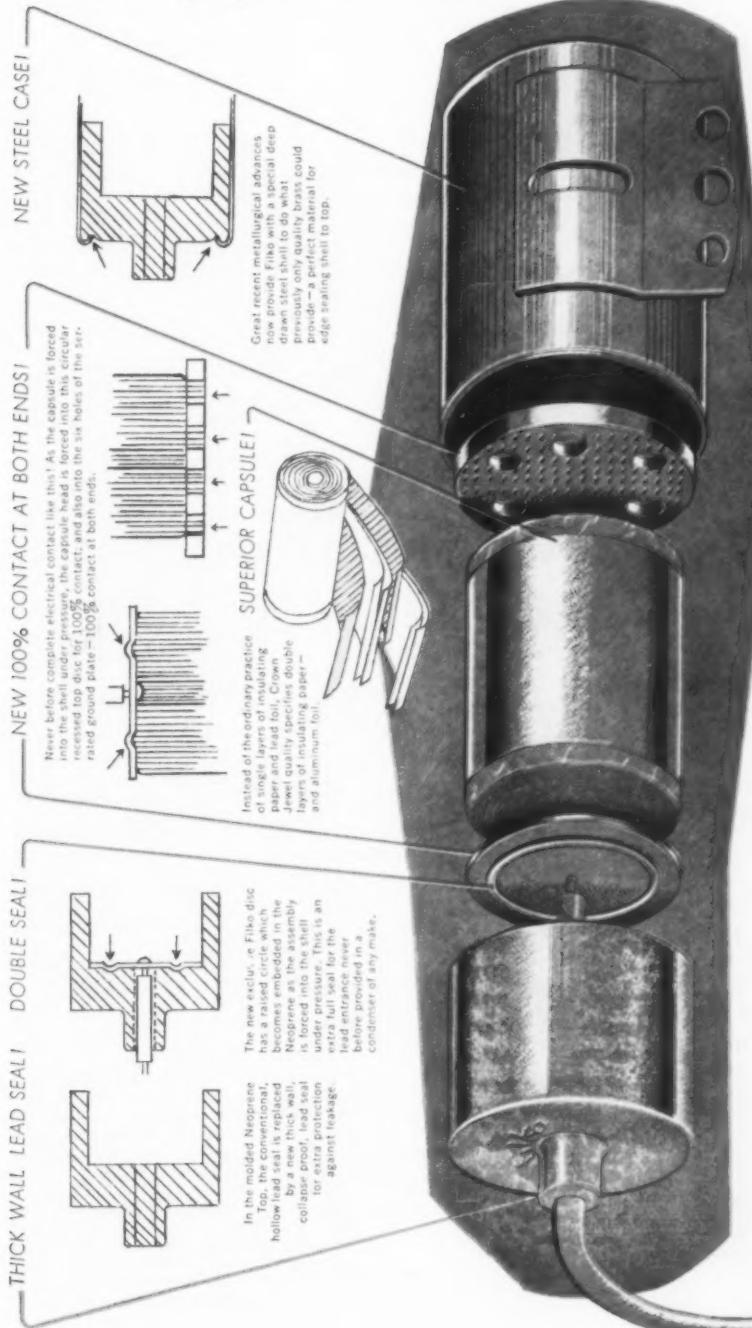
A 4-volume "master" catalog containing more than 22,000 parts numbers, each volume covering 4 major parts lines—engine parts, chassis parts, automatic transmission parts and engine bearings, published by Toledo Steel Products, division of Thompson Ramo Wooldridge, Inc., features a distinctive cover design and color for each volume with quick reference and easy reading for parts listings.

Want more info? Use coupon on page 99 and you will get it!

# FIRST AGAIN!

## CONDENSERS!

Something truly new in



Now at your Filko wholesaler,  
**this Pull-Apart model.**

See it! Get the inside facts!

Inside—and outside—a new achievement in vibration proof design to provide a new high in condenser performance. New, unique discs for improved 100% electrical contact. New, leak proof, deep drawn, steel shell. To all of the tens of thousands of installers who are using Filko Condensers, the question might logically be, "Why change?" The answer is, of course, that Filko engineering looks always to new ways to improve quality and performance. It is this that keeps Filko the standard of comparison, "the Crown Jewels of Ignition." F & B Mfg. Co., 4248 West Chicago Avenue, Chicago 51, Ill.

**filko**  
another achievement in the  
*Crown Jewels of Ignition*

## 808—Vacuum Cleaners

A line of 9 heavy-duty vacuum cleaners, introduced by The Black & Decker Mfg. Co., Towson 4, Md., includes "No. 25," the company's smallest basic unit, with  $\frac{1}{4}$ -bushel capacity, and the "No. 55" unit built to fit any standard 55-gallon drum for wet or dry cleaning.

Others include the "No. 35" heavy-duty "whisper quiet" cleaner with steel tank and 1 $\frac{1}{4}$ hp. motor, "No. 65" in 4 tank variations: steel or stainless steel; 8-gallon or 13-gallon capacity, with 2 $\frac{1}{4}$ hp motor, and the "No. 95" heavy-duty "workhorse" with 2 $\frac{1}{4}$ hp motor, square steel tank of 13-gallon capacity and blower outlet, plus removable cart

handle and accessory carrier. A variety of accessories, including hose assortments, nozzles, floor and carpet tools, square steel tank, 13-gallon capacity nozzles, extension tubes and adapters, are available.

Want more info? Use coupon on page 99 and you will get it!

## 809—Warning Switch

Approved to comply with ICC regulations for stopped or parked vehicles, a "Pathfinder" dash-mounted, universal-type heavy-duty warning emergency converter or throw-over switch, announced by Auto Lamp Mfg. Co., 2909 South Indiana Ave., Chicago 16, Ill., flashes 4 or 6 lights (2 front, 2

rear, plus 2 extras) simultaneously.

No change of any lighting units is necessary, it was claimed. Complete with heavy-duty Tungsol flasher, unit is quickly and easily installed through or under the dash and connected to the signal system. A translucent red plastic knob lights up instantly when all lights are in operation. Unit requires an area  $2\frac{1}{4}$ " wide by  $2\frac{1}{4}$ " deep, and is available for 6 volts with "No. 535" flasher; for 12 volts with "No. 534" flasher, and for 6 or 12 volts without flasher.

Want more info? Use coupon on page 99 and you will get it!

## 810—Tire Changer

Utilizing compressed air power for bead breaking, demounting or remounting operations, "Flite-Positive" tire changer, introduced by Dynamic Center Engineering, Inc., P. O. Box 128, Norcross, Ga., is said to be the nearest approach to a fully automatic machine for handling tubeless or conventional tires.

The model combines 2 different air-powered machines into one self-con-



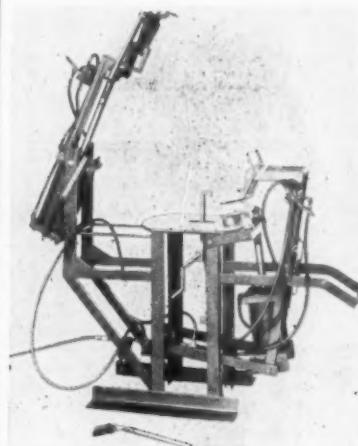
*"Reminds me, I picked up a dandy Everhot Seat Adjuster Motor today."*

Now! Compact 2-motor assortment gives you the right motor replacement ON HAND at all times! New Everhot **No. 802 "Duo"** Dealer Assortment contains 2 universal small motors to replace 85% of all car and truck heater, defroster and air-conditioner motor replacement needs! Don't overlook a good bet — this compact assortment really puts you in this money-making field quickly, without stocking hundreds of motors. You invest less than \$20.00 — make \$11.95 plus installation profits! Order from your Everhot jobber today!



### EVERHOT PRODUCTS COMPANY

2001-9 West Carroll Avenue  
Chicago 12, Illinois



tained service unit that handles all operations of tire changing. On one side a double bead breaker permits operator to separate the wheel assembly from the tire. On the other, a machine completely removes the tire from the rim, or puts it back in position for mounting. Changer fits all wheels, is self-adjustable, has no loose parts and requires only one small hand tool for operation, according to the company.

Want more info? Use coupon on page 99 and you will get it!

## 811—Puller

Weighing only 14 ozs., a 2-jaw "Grip-O-Matic" puller to quickly and easily remove Autolite generator pulleys (press-fit) without damage to parts, announced by Owatonna Tool Co., 306 Cedar St., Owatonna, Mich., reportedly has approximately  $\frac{3}{4}$ -ton capacity.

The "No. 1000 $\frac{1}{2}$ -L" may also be used for many other small pulling jobs, the manufacturer said. OTC shaft protector ("No. 62506") with tip filed off is used with the puller when removing Autolite generator pulleys.

Want more info? Use coupon on page 99 and you will get it!



## Unusual Design Pistons like these should be finished at the factory

Finishing pistons like you see here is a difficult problem, even in the best equipped jobber shops. First, their unusual design makes these pistons hard to chuck in the grinder. Second, finishing to the more exacting dimensions specified for these intricate designs requires special equipment that is seldom available locally.

Third, and equally difficult for local finishers, is the coating that guards against scuffing

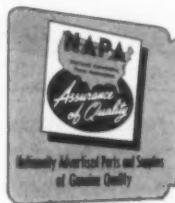
during break-ins. That's why Allied has made factory-finished pistons available to you locally, precisely dimensioned to correct clearances and contours, with aluminum pistons tin-coated—cast iron pistons lubrite finished for safe break-in protection.

Take advantage of this unusual Allied service, provided *only* by your N·A·P·A Jobber.

**ALLIED AUTOMOTIVE PARTS COMPANY**  
*Indianapolis 7, Indiana, U. S. A.*

This sign—on your shop  
—is your customer's assurance of  
fast service with quality parts.

Get it from your N·A·P·A Jobber  
...a good man to know!



## 812—Overload Spring

For increasing payloads up to 1,500 lbs. for 1960 Chevrolet and GMC  $\frac{1}{2}$ -and  $\frac{3}{4}$ -ton panel and pickup trucks, a leaf-type overload spring announced by Laher Spring and Electric Car Corp., 2615 Magnolia St., Oakland 7, Calif., reportedly distributes weight evenly so that axle and suspension system are not overloaded, and adds padding to riding quality while protecting the axle.

Kit includes 5 spring leaves of finest grade alloy spring steel and all necessary bolts and brackets for fast, economical installation.

Want more info? Use coupon on page 99 and you will get it!



Low-Cost Hydra-Clean lets one man clean both bodies and motors... quickly, thoroughly, economically

## How low-cost GRACO Hydra-Clean can help you clean up on big new profit!

Here's a tested way to get new profit from cleaning cars and trucks... without a costly, bulky wash installation that takes special training to operate! Amazing GRACO Hydra-Clean now gives you simple, one-man washing for fast and easy, low-cost body and motor cleaning. Triple action of detergent mist, pressure wash and water rinse makes cars, trucks and busses gleam like new in minutes. Makes motor maintenance a breeze... ends working with slippery, grimy parts. Economical air-powered pump fits any 15-55 gallon container.

Check into this complete, low-cost Hydra-Clean package. Includes famous GRACO non-corrosive air-powered pump and starter pail of GRACO "Dirt-Tergent" Cleaner. Write for free illustrated brochure or see your Automotive Wholesaler!

Automotive Servicing  
Equipment by

# GRACO

GRAY COMPANY, INC.

1070 Graco Square • (TWX-MP 768)  
Minneapolis 13, Minn./Phone FEderal 6-9331

## 813—Tire Changer

Power bead breaking and power mounting and demounting reportedly can be done any place where there is an air hose and electrical connection with the "880-61" electric-air power tire changer, announced by Bishman Mfg. Co., Route 2, Osseo, Minn., which features a built-on air power double bead breaker that operates with a regular air chuck.

Either bead can be broken alone or both simultaneously and the bottom bead is held up in the well to make it easier to demount both beads, it was claimed. An electric power-driven mount-demount tool automatically clears the rim and wheel weights. A



three-jaw self-centering chuck engages the rim instead of the center hole in the wheel, and will handle any wheel and rim from 12" through 17½" without any adapters or accessories, according to the manufacturer. Base is enclosed for maximum stability.

Want more info? Use coupon on page 99 and you will get it!

## 814—Brake Catalog

Publication of a 48-page catalog listing lining blocks and specifically designed for easy use in determining lining needed for commercial vehicles with straight air, vacuum, electric or other mechanical cam-type brakes has been announced by the Automotive Parts and Accessories Division of Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.

With each listing of lining set numbers, the corresponding brake sizes are shown. Vehicle model reference is simplified, enabling users to see immediately the basic models, any options or variations, plus all brake sizes. Illustrations and tables permit identification of the "thick" blocks.

Want more info? Use coupon on page 99 and you will get it!

## 815—Body Mender

A "black" body mender, introduced by Swiss Laboratory, 1533 Hamilton Ave., Cleveland 14, O., is said to be ideal for body shops and used-car dealers who demand a competitively priced "black" body mender.

Outstanding advantages claimed for "Black Jack" include non-toxic cream hardener, no itch, no fumes, excellent adhesion and "flex," minimum dust and fast hardening.

Want more info? Use coupon on page 99 and you will get it!

## 816—Bleeder Adapters

Adapter fittings to facilitate pressure bleeding of hydraulic brake systems with its "Fluid-Bal" have been announced by Wagner Electric Corp., 6400 Plymouth Ave., St. Louis 14, Mo.

Adapters are used for brake bleeding of 1960 Ford, Falcon, Mercury and Edsel passenger cars and 1960 Chevrolet trucks. They are marketed with the "Fluid-Bal" and are available individually for bleeders in use.

Want more info? Use coupon on page 99 and you will get it!  
(More New Products on page 114)



### Want low-cost lube work?

In addition to one or more Hydra-Clean units, plan to include a full line-up of money-saving GRACO Lubricating Equipment. We can help you plan for top efficiency... write today for details!

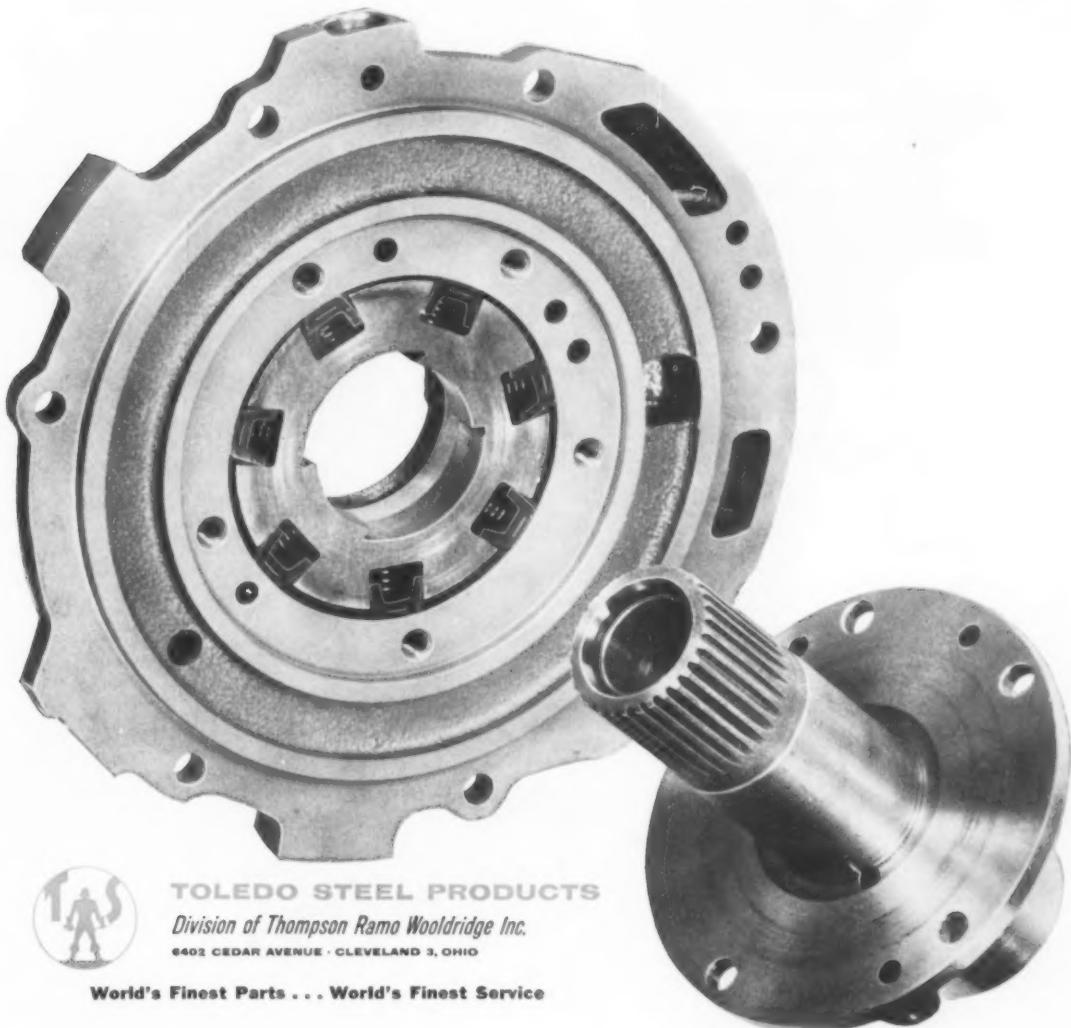
**your best complete line buy  
for immediate availability  
and quality performance**

## **TOLEDO STEEL**

# **AUTOMATIC TRANSMISSION PARTS**

**Exclusive slipper-type pump.** This Toledo pump (see large illustration) for 2 and 3-speed transmissions is the only pump available which does not lose efficiency as its working parts wear. And Toledo's unique slipper design produces a non-pulsating discharge for quieter operation over a wide speed range.

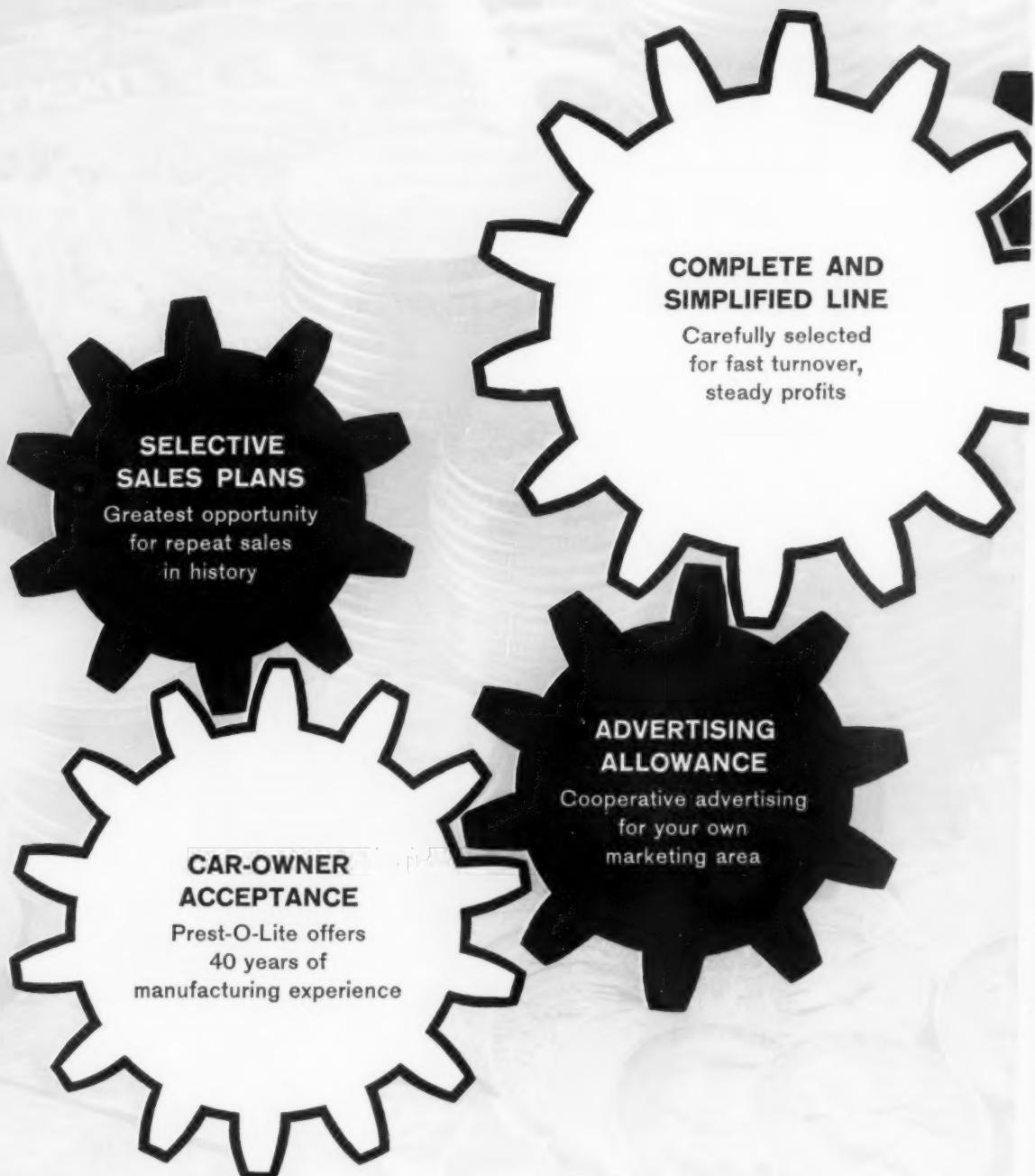
**Hard-to-get Torus Covers...we have them!** Hard-to-find front unit Torus Covers for Hydra-Matic controlled coupling transmissions are in plentiful supply through Toledo Steel Products—one more example that demonstrates the benefits of making Toledo Steel Products your one-source supplier for automatic transmission parts.



**TOLEDO STEEL PRODUCTS**

*Division of Thompson Ramo Wooldridge Inc.  
6402 CEDAR AVENUE • CLEVELAND 3, OHIO*

**World's Finest Parts . . . World's Finest Service**





## Get all 5—and gear up to real battery profits with Prest-O-Lite!

Are your battery profits building up like sixty? If not, better investigate Prest-O-Lite.

Prest-O-Lite features are profit-gearred to give you a custom-made battery plan for today's selling.

Call, write or wire, today. PREST-O-LITE DIVISION, The Electric Autolite Company, Toledo 1, Ohio.

**Prest-O-lite®**  
WET OR DRY CHARGED **BATTERIES**

***there's a big difference when  
mow with pride***

# With

**THE ONLY QUALITY AUTO**

Why is there a big difference when you sell Certified? Simply because

Certified Power Mowers give you *selling advantages your competitors don't have!* Just stands to reason, with more to sell . . . you'll sell more . . . and make more profits!

**ONLY CERTIFIED POWER MOWERS GIVE YOU ALL THESE**



**Model 2227 22"**  
Self-Propelled Rotary



**Model 2225 22"**  
Free-Wheeling Rotary

#### **ROTARY**

Exclusive Hinged-Tip Deflector  
Blade with 100% Lifetime  
Crankshaft Guarantee!



New Wind-Up Starter with  
Safety Starter Control  
Release on Handle!



Instant Height Adjustment . . .  
no complicated bolts or screws  
to change. Really fast and easy!



Choke-O-Matic Throttle placed  
right at the user's fingertips for  
unequalled operating ease!

#### **Plus . . .**

Rugged All Steel "Armor Plate" Construction, Side Trimming Feature, Leaf Mulcher, Balanced Wheel Non-Scalping design, powerful 4-cycle Engine, new Extra quiet Muffler, and many other outstanding features!



**Model 2236 24"**  
Riding Rotary

Also available:  
Model 2205 18" Free-Wheeling Rotary

*your customers*

# Certified

MOTIVE LINE WITH ALL THE SALES ADVANTAGES!

**BIG SELLING FEATURES AS STANDARD EQUIPMENT!**

**REEL**



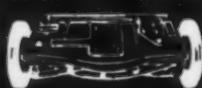
New Wind-Up Starter  
with Safety Starter  
Control Release on Handle!



Fingertip Clutch . . . just takes a flick  
of the finger to stop or go!



Choke-O-Matic Throttle  
fingertip motor  
speed control!



Heavy duty all steel  
"Box Type" Construction  
most rugged frame of all!

Plus . . .  
Easy Height Adjustment, Finest Austempered Tool Steel Cutting Blades and many many other outstanding features!



Model 2115 21'  
Reel-Type Mower

Also available:  
Model 2115-00 20' Reel-Type Mower

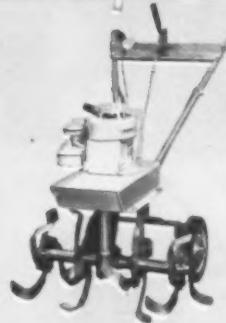


Model 2105 18'  
Reel-Type Mower

Also available:  
Model 2105-01 18' Reel-Type Mower



Model 5399  
Edger-Trimmer



Model 5345 26'  
Self-Propelled  
Rotary Tiller



Model 5343 21'  
Self-Propelled  
Rotary Tiller

**MAIL COUPON TODAY FOR FULL DETAILS ON THE  
FAMOUS CertiFIVE AUTOMOTIVE PROFIT PLAN!**

Get in touch with  
your Certified  
jobber now, or mail  
this coupon for the  
most profitable  
lawn mower season  
you've ever had  
. . . with Certified  
. . . the power  
mower line that  
outmows them all!

**Western Tool and Stamping Company**  
**2725 Second Avenue • Des Moines 13, Iowa, Dept. SAC-1**

Okay . . . show me the advantages of the Certified line and tell all about the CertiFIVE  
Automotive Profit Plan!

Name \_\_\_\_\_

Firm Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

Zone \_\_\_\_\_ State \_\_\_\_\_

Dealer

Distributor

## New Products

(Continued from page 108)

### 817—Temperature Tester

Supplied with 3 color-coded leads and probes for easy location identification, a temperature tester, introduced by Simpson Electric Co., 5200 W. Kinzie St., Chicago 44, Ill., is said to permit a temperature reading in 3 different locations—at air-conditioner intake and exhaust, plus outside air—in a matter of seconds.

Tester is said to provide speed, ac-

curacy and readability not obtainable from most conventional-type mercury thermometers. Just flick the switch and read the meter. It has a dual-range meter scale from  $-50^{\circ}$  to  $+250^{\circ}$  F., and can be used as a time- and trouble-saver on overheating complaints, the manufacturer said.

Want more info? Use coupon on page 99 and you will get it!

### 818—Station Wagon Mats

Replacement station wagon cargo deck mats, introduced by Mats Unlimited, Inc., 5001 Baum Blvd., Pittsburgh 13, Pa., are said to be precision die cut from original equipment ribbed vinyl station wagon matting.

Available for most popular makes, mats are color-keyed in car factory patterns to match interior trim. Included with the set of mats is a can of "Matstick" adhesive for the installation.

Want more info? Use coupon on page 99 and you will get it!

### 819—Brake Control Valve

Slippage or creeping of parked cars reportedly is eliminated with "Park-Safe" brake control valve, announced by A-Co Mfg. Co., Claverack, N. Y., which is installed under the hood—keeping it inaccessible to children playing in or near the parked car—and does not affect the feel of brakes or interfere with normal braking.

Brakes are automatically locked when foot brake is applied and motor



## 5 BIG REASONS WHY HOMESTEAD'S NEW MULTI-JOB WASHER CAN BE A REAL MONEY-MAKER FOR YOU

Homestead's Multi-Job Washer does the work of a \$1,000 semi-automatic car washer and a \$400 engine cleaner—yet costs only \$325!

Heat makes the difference—it's revolutionary new cleaning method washes cars in 7-10 minutes without rubbing dirt into polished surfaces.

only  
**\$325**



In addition to car washing and motor cleaning, you can make money cleaning lawnmowers, trucks, farm implements, grocery carts, floors, grease pits, etc.

Choice of heat up to  $180^{\circ}$  F., at 300 lbs. pressure, enables you to do a real motor-cleaning job!

It's all electric. No fumes. No flame. No fogging. Ideal for year-round use indoors—year-round profits, too.

For full, money-making details on the Homestead Multi-Job Washer, mail coupon

Please send me full information on Homestead's Multi-Job Washer.

Name..... Title.....

Company.....

Address.....

City..... Zone..... State.....

is off. They are automatically released when motor is started. In an emergency, however, brakes can be easily released (from under hood) for towing. With valve installed between the master cylinder and the wheel cylinders, fluid is trapped in the wheel cylinders after brake pedal has been depressed by means of a ball installed in a rotating armature which is actuated by a vacuum device. When engine is shut off, the vacuum device returns to its normal extended position and moves the ball into a seat, which prevents brake fluid from returning to the master cylinder. When engine is started, the vacuum pulls the armature around and removes the ball from seat and path of brake fluid's travel.

Want more info? Use coupon on page 99 and you will get it!

### 820—De-Icer Spray

Frost and ice on car windshields, lights, locks and windows reportedly can be melted fast with "AS-241" spray de-icer, announced by Union Carbide Consumer Products Co., Division of Union Carbide Corp., 30 E. 42nd St., New York 17, N.Y., which also is said to prevent inside glass fogging and to keep ice from forming for hours.

Product also provides wheel traction under certain icing conditions, it was claimed. Propellant system shoots a strong spray at temperatures ranging below  $0^{\circ}$  F., the manufacturer said. It reportedly can be sprayed accurately on the windshield from 3' to 4' away and is harmless to car finishes.

Want more info? Use coupon on page 99 and you will get it!

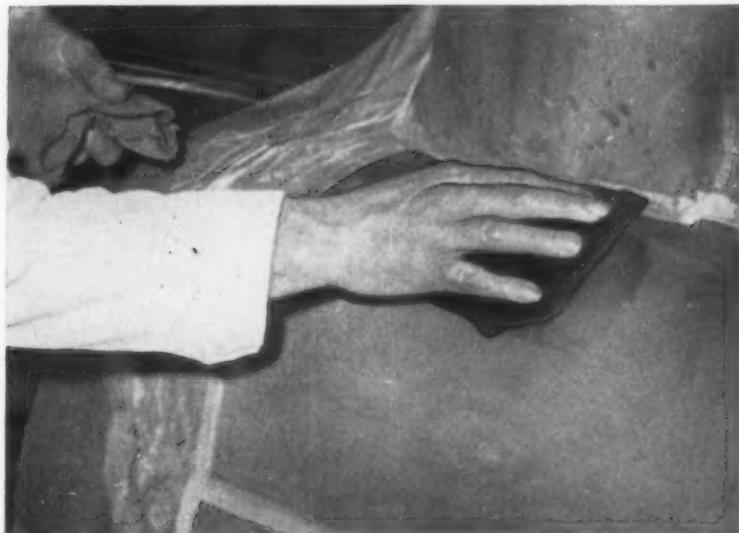


HOMESTEAD VALVE MANUFACTURING COMPANY  
Hypersure Jenny Division—Cranepolis, Pa.

(In Canada: Hypersure Jenny Sales & Service, Ltd., 517 Jarvis St., Toronto 5, Ontario)

Make clean-up jobs easier and faster with . . .

# DITZ-O 4-4-0



Use DITZ-O on acrylics, lacquers and enamels . . . removes silicones.

## zips off old waxes and greases... gives undercoats a bulldog grip

**D**ITZLER'S DITZ-O DX-440 is a fast-acting solvent that speedily removes old wax and grease. It leaves a chemically clean surface to which undercoats adhere more doggedly.

• The "floating action" of DITZ-O loosens and dissolves old polishing waxes, silicone particles, greases, oils, tar, and road dirt imbedded in the pores of the old finish. It floats them to the surface where they can be quickly wiped off. Unless thoroughly removed,

these undesirable materials can cause new finishes to blister, flake and peel.

• Although strong enough to dissolve wax and dirt, DITZ-O will not soften old or new paint film. And you can safely use it with primer-surfacer as it will not lift feather-edge or cause wrinkling at moldings.

• DITZ-O has no unpleasant odor. It's easy on the hands. You'll like its economy, too, as it goes farther than other solvents.



### To remove stubborn silicone particles use SILICON-OFF

• Ditzler's SILICON-OFF DX-515 is especially formulated to clean finishes on which polishes containing silicone have been used. Unless thoroughly cleaned off, silicone particles can interfere with proper

flow, leveling and adhesion. They can cause craters or "fish eyes." With SILICON-OFF you quickly remove all traces of silicone as well as waxes, greases and oils. Can be used safely on acrylic finishes.

Ditzler Color Division, Pittsburgh Plate Glass Company • Detroit 4, Mich. • Torrance, Calif.



# DITZLER®

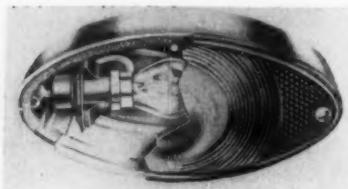
PAINTS • GLASS • CHEMICALS • BRUSHES • PLASTICS • FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY

IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

## 821—Lamp Line

Jolts, jars and bumps which curtail bulb life are said to be absorbed by a floating socket incorporated in the "Shockmount" line of clearance, marker, cab marker, armored, stop-tail-license plate and Class A, Type I



directional signal lamps, announced by Signal-Stat Corp., 523-539 Kent Ave., Brooklyn 11, N. Y.

Want more info? Use coupon on page 99 and you will get it!

## 822—Half-Ton Crane

Designed primarily for use on service and delivery trucks, a half-ton crane, introduced by Edgewater Automotive Division, St. Joseph, Mich., uses hydraulic power to raise loads weighing up to 1,000 lbs.

Featuring an adjustable telescoping boom which locks in 3 positions—from 38" to 57½"—crane may be installed on the deck of delivery or service trucks or on loading platforms, ma-



chine tools or throughout the shop where heavy lifting is done. Extra mounting wells are available to permit multiple use of a single crane unit. When not in use, boom folds down against the mast. Boom members and mast are of heavy-gauge steel tubing. Base plates, gusset plates and power unit bracket are of heavy-gauge steel and are welded to mast to form a rigid unit. Hydraulic power unit gives full-rated capacity with boom at 38", according to the manufacturer's announcement.

Want more info? Use coupon on page 99 and you will get it!

## 823—Unit Body Straightener

Key feature of its portable "Unit-Dozer" unitized body straightener, announced by Blackhawk Automotive Division, 5325 W. Rogers St., Milwaukee 46, Wis., is an adjustable, self-locking anchor post that slides along the entire length of the unit's horizontal beam.

By moving the anchor post to a desired position, the operator can pull damage from a point as close as 6" from the car, it was claimed. Up to 10 tons of hydraulic pulling power is said to be available. Equipment is designed for correcting damage by pulling from the point of impact on any unitized automobile construction, as well as straightening a major share of frame damage.

Want more info? Use coupon on page 99 and you will get it!

## 824—Filter Catalog

Printed in color, a 116-page catalog of oil, air and fuel filters, published by Wix Corp., Gastonia, N. C., is divided in 3 major sections—cross reference by filter make and model, replacement specifications by equipment make and model and replacement specifications by equipment manufacturer's part numbers—and gives complete data on cars, trucks, buses, farm and construction equipment, stationary engines and filter-equipped foreign cars and trucks.

Want more info? Use coupon on page 99 and you will get it!

Storm-Vulcan announces  
THE NEW MODEL 60  
HEAD AND BLOCK MILLING  
MACHINE

Check the Rest Buy the Best!  
Storm-Vulcan

NOW — Compare the features of S-V Model 60 with any other Head and Block Resurfacing Machine:

Minimum floor space required (34" x 47"); fastest setup of heads and blocks; rugged construction but weighs only 3200 lbs.; positive stock removal control; work capacity: 15" x 39"; cutter feed: 5½" per minute; rapid traverse . . . 86" per minute.

Write for Free literature on all S-V Equipment

**Storm - Vulcan, Inc.**

WHERE MACHINES ARE DESIGNED WITH THE OPERATOR IN MIND

2225 Burbank Street • FLeetwood 1-3735 • Dallas 35, Texas

# compare

**TORQUE • PERFORMANCE • DEPENDABILITY**



*BUY  
A...* **SIOUX** **AIR or ELECTRIC**  
**IMPACT WRENCH**



NO. 322

Superiority of their mechanical design is revealed in the unusual efficiency of Sioux Air Impact Wrenches. Wrench for wrench, model for model, size for size, SIOUX can be counted upon to deliver an average of 15% more torque, while consuming 30% less air! Less power is absorbed by the wrench itself. More is applied to the drive. Three Sioux

**while consuming  
30% less air!**

wrenches can be operated on the existing air supply for every two of another kind. This correctness of engineering design has also produced a wrench of superior endurance, longevity, and freedom from trouble. Low first cost, higher torque, lower air consumption and long trouble-free life add up to make SIOUX THE BIG BUY IN AIR IMPACT WRENCHES!

**No guess work with . . .**



When it's a Sioux, you know what it will do! Sioux tells you the torque your air or electric impact wrench will deliver. You don't buy just a wrench. You buy certified Sioux power, reversible power, and on air wrenches controllable power through eight point power selector.

**A SIZE FOR  
EVERY NEED!**

From the big No. 322 Sioux Air Impact Wrench (upper left) capable of up to 1,000 foot pounds of torque at 90 pounds of air pressure, to the little No. 313 (pictured at right) which weighs 2½ pounds and can deliver up to 80 foot pounds of torque, there's a full range of Sioux impact wrench sizes and models.

**REACTION BALANCED for  
Less Vibration Feed Back**

All Sioux Impact Wrenches are "reaction balanced" for less vibration and torque feedback and for minimum operator fatigue. There's less shock and twist when the wrench impacts. You can feel the difference!

**SIOUX**  
*Electric*  
**IMPACT  
WRENCHES**



**SIOUX** Electric Impact Wrenches offer equal power in right or left hand rotation. The torque for each wrench is stated and certified. Their mechanical design offers exactly the same advantages as that of the air wrenches. Their exclusive reverse cap switch lock prevents reversing with the current on, and eliminates burning commutator brushes and switch contacts. Their efficiency, performance, and freedom from trouble are unexcelled.

*Look under "TOOLS, ELECTRIC" in the Yellow Pages*

**ALBERTSON & CO., INC.**  
SIOUX CITY, IOWA • U.S.A.

AIR IMPACT WRENCHES • AIR SCREWDRIVERS • ELECTRIC IMPACT WRENCHES • ELECTRIC SCREWDRIVERS • DRILLS • GRINDERS  
• SANDERS • POLISHERS • FLEXIBLE SHAFTS • PORTABLE SAWS • VALVE GRINDING MACHINES • ABRASIVE DISCS



# NOW... R-M TRUE ACRYLIC TO REPAIR ALL 1961 COLORS ON THESE 21 CARS

*Currently available for:*

BUICK  
SPECIAL  
CADILLAC  
CHEVROLET  
CORVAIR  
CORVETTE  
OLDSMOBILE  
F-85  
PONTIAC  
TEMPEST

COMET  
FALCON  
FORD  
LINCOLN  
MERCURY  
THUNDERBIRD

DE SOTO  
DODGE  
LANCER  
PLYMOUTH  
VALIANT

*All colors for all cars in factory packages.*

## ALPHA-CRYL TRUE ACRYLIC

*Alpha-Cryl Colors also available  
through the R-M Tintometer system.*



### Why ALPHA-CRYL?

This is the only finish available for refinishing work which will match—in beauty, durability, and gloss retention—every 1961 original-production enamel and acrylic finish. (Left: No loss of gloss after many years.)

### RINSHED-MASON COMPANY

Detroit 10, Mich. • Anaheim, Calif.  
Windsor, Ontario, Canada

### WOLVERINE FINISHES CORP.

Grand Rapids, Mich. • Morganton, N.C.



Manufacturers of paint finishes and  
special coatings for the automotive, fleet,  
farm implement, aircraft, appliance,  
furniture, marine, mobile home and  
other industries.

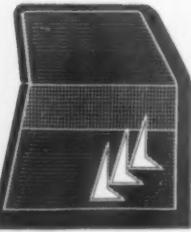
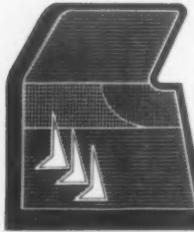
*There's an R-M Jobber near you!*



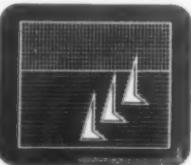
One of the newest units of the Independent Garage Owners of Georgia is the Cartersville group. The members are shown here with some of their sponsors. Seated are (l. to r.): Henry Morris and John Henry Evans of Cartersville, H. F. "Red" Reagin of Atlanta, past president of IGOA, and Henry S. Clark, executive director of the Georgia Automotive Wholesalers Association. Others in the photo include C. D. Bedenbaugh of Atlanta, manager of the IGO; Hugh Pritchard, Cartersville jobber; Harry F. Wright, president of the IGO of Atlanta; "Red" Salyer and Hill Cowan, Atlanta garagemen; James A. Endors, Sam Thacker, James A. Moore, Ross Bradley, Monroe Cagle and Frank Kennedy, all of Cartersville.

## MONKEY GRIP CAR and UTILITY MATS

**NEW Advanced Styling  
For All Modern Cars**



**TRIM-FIT TWIN MATS** — The ultimate in style for modern car floor protection. Engineered in size and design to fit full size and compact car floors. Special heel rest area for comfort and safety. All new, highest quality live rubber — colors stay bright longer. 3-color boxes for attractive display.



The 100% utility mats, style-matched for TRIM-FIT TWINS companion set selling. Most attractive, modern style.

**WRITE FOR COMPLETE CATALOG.**

**MONKEY GRIP SALES CO.**

F.O. BOX 6170

DALLAS, TEXAS

**The complete line  
of fast-selling  
mats for all cars**



FULL-FIT (Front) — Door to door protection. Universal design for practically all cars — Individually boxed.



G-M 60 — Especially designed for '59 and '60 General Motors cars (except Cadillac and compact models).



FULL-FIT (Rear) — Over-the-hump protection for rear floors. Universal fit. Also, a utility mat.



FEATHER FLEX TWINS — Universal fitting mats for front floors — Rib-and-groove and diamond waffle surface designs.



UTILITY MATS — All-purpose mats for cars and all utility needs. Wide range of sizes.

### Lights Highlight Imperial

(Continued from page 43)

A redesigned instrument panel features controls convenient and accessible to the driver.

The elliptically designed steering wheel offers the driver an unobstructed view of all controls important to the operation of the automobile.

Slightly canted elliptical nacelles form twin towers on either side of the steering wheel and house both the new pushbutton consoles and turn indicator lights. Control knobs are conveniently arranged in a bank below the speedometer cluster.

The horizontally arranged recessed speedometer spans the width of the driver control area, and is outlined in rich chromium. To the left of the speedometer is the brake warning light, while to the right is the high beam warning light. Below these are located the oil pressure and ammeter gauges on the left with engine temperature and fuel gauges to the right. An attractively designed clock face adorns the center of the panel.

All controls are illuminated by electroluminescent lighting—the soft blue-green instrument panel lighting introduced to the industry by Imperial last year. EL light, as it is called, virtually eliminates the use of incandescent light, and reportedly reduces panel glare up to 500% over former types of illumination.

1961 marks the third year of operation of Imperial's modern assembly facility. More than 700 individual hand-crafting operations are performed in the plant. Production areas are divided into 38 quality monitoring areas, while each Imperial during the production process receives individual intensive water tests in a specially-constructed booth situated on the assembly line.



another  
advance in THIN  
cylinder head  
gaskets

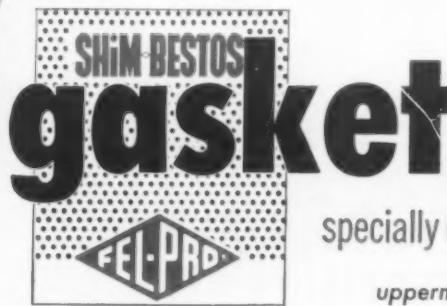
# new SHiM-BESTOS

SOLVES  
leakage and seepage  
problem on  
high compression engines  
STOPS  
costly  
comebacks!

Why take chances on conventional cylinder head gaskets when you can have the profit protection of new, specially designed SHiM-BESTOS... Leakage and seepage, frequent causes of comebacks, can be stopped without reducing high power compression! SHiM-BESTOS has double the compressibility of present materials in an exceptionally thin design, plus exceptional fluid resistance to hot oil, anti-freeze and water. Installations are better, high power compression is maintained and you make more profits. Ask your Fel-Pro Jobber for SHiM-BESTOS cylinder head gaskets the next time you order. Be sure to ask him for a copy of the new, free, fact folder or write direct. Felt Products Mfg. Co., 7450 North McCormick Blvd., Skokie, Illinois. Since 1918.

**FEL-PRO**

R-938



specially designed  
with your profit  
uppermost in mind!



## TIME SAVERS

### Devising Floor Pedestal For Heavy Vise Setup

**F**ROM the standpoint of rigidity and convenience, it is not always desirable to mount a heavy-duty vise on the top of a shop bench. An extremely sturdy support with greater access can be obtained if the vise is set up on a floor pedestal.

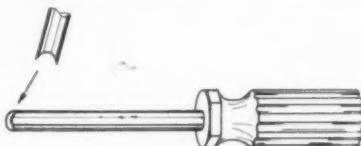
Vise base can be made from a short length of heavy structural channel with a steel shoe welded to it. An angle iron welded to the channel can be bolted to a structural column in the shop, while a pipe support welded to the channel can be bolted to the floor to complete the job. We use the heavy vise for jobs involving bending and straightening which require con-

siderable force applied to the vise and its mounting.—H. J. Gerber, 1604 W. 8th, Stillwater, Oklahoma.

### Making Brake Spring Tool For Falcons and Comets

**I**t is very difficult to remove and replace the springs holding the brake shoes to the braking plates on Falcons and Comets without a special tool. One such tool can be made from a discarded screwdriver, as illustrated.

Using a screwdriver with a blade



3/16" in diameter and about 8" long, grind and file blade tip to a half-moon shape as shown. Insert tool inside the spring from the outer end with tip placed against the eye on the inner end of spring. Pushing on tool will allow the eye to be slipped off the hook to which it is attached and the spring can be removed. Replace in the same manner by inserting the end of tool in spring eye and pushing it on to hook.—R. D. Hudgens, 2814 Lillian Street, Shreveport, Louisiana.

### Using Ballpoint Pen To Make Test Prod

**A**N ELECTRICAL circuit testing prod can be quickly devised from the empty sleeve of a ballpoint pen—the low-cost, non-refillable type.

## HERE'S A SPRAY PAINT SELLING AID TO HANG YOUR HAT ON!



### FOR THE FIRST TIME IN THE SPRAY PAINT INDUSTRY

a giant replica of the Plasti-Kote can that comes filled with every selling aid you need to build profitable spray paint volume and, on top of that, becomes a spectacular counter or window display (you can even hang it from the rafters). Use this coupon now.

### Send for Yours Today!

Plasti-Kote, Inc., Dept. AK 3  
9801 Harvard Avenue, Cleveland 5, Ohio

Gentlemen: Ship me your giant new advertising kit for promoting spray paint sales.

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

**GOT A GOOD IDEA?**

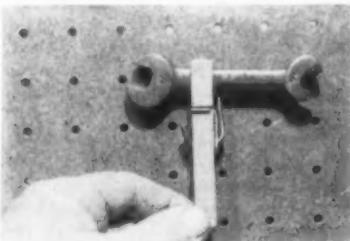
**\$7**

will be paid for every time-saver or shop short-cut accepted for publication in this section. A photo or rough sketch will make your idea more valuable. Only original items, not previously published, offered for our exclusive use, can be considered. Send them to: Southern Automotive Journal, 806 Peachtree St., N.E., Atlanta 8, Ga. Rejections cannot be returned.

Sharpen a nail of the proper size to fit the sleeve and solder a length of insulated wire to the head end of nail. The nail can be held securely in the sleeve by wedging it in with metal foil or similar packing. Two prods like this connected in a series with a simple test lamp will save much time and trouble in locating a defective contact or open circuit.—Glen F. Stillwell, 340 Ninth Street, Manhattan Beach, California.

**Employing Clothespins At the Pegboard**

ATTACHING a few spring-type clothespins to the tool pegboard will make it more useful as a rack, since the clothespins will hold small open-end wrenches and odd-shaped small articles securely to the board, yet make them instantly available to the user.



Hooks for the clothespins can be made from stiff wire. Insert one end of the wire through the spring "eye" of clothespin and the other end in the pegboard in the usual manner.—Glen F. Stillwell, 340 Ninth Street, Manhattan Beach, California.

**Detecting Oil Leaks On 1958 Fords**

AN ELUSIVE oil leak that sometimes develops on 1958 Ford cars with the 332- and 352-cubic-

inch engines hardly ever shows when a check for oil leakage is conducted, but on the road the oil gets out and is apparently leaking, even though the engine doesn't smoke excessively.

We have found this trouble is caused by a split dipstick tube which allows the oil to leak out at high speeds. Either weld or replace the dipstick tube as the customer desires.—James D. Martin, Service Manager, Jack Hughes Motors (Ford), 100 E. San Antonio, San Marcos, Texas.

**Improving the Handles On Screwdrivers**

MANY screwdrivers can be greatly improved for more comfortable use by slipping a crutch tip over the handle.

The small rubber cups not only provide a more comfortable grip but also insulate the handle if the steel shank extends completely through it, as in some cases. This will also provide a more powerful grip for short-bladed screwdrivers which must be used often in close



**LEE puts an oil refinery in your customers' cars!**

Just like an oil refinery, a full-flow LEE Oil Filter not only removes sludge and grit, it also *neutralizes acids* which often form as a by-product of combustion. This dual-action purifying process—made possible by LEE'S Resinweld® construction and unique antacid Feridium® anode—assures better engine performance, greater customer satisfaction.



*Lee creates new concepts*

*in filter design and efficiency*

Every dual-action LEE filter gives you an extra profit margin as well as an extra sales feature: LEE Oil Filters remove dirt and neutralize acids; LEE Gas-O-Line Fuel Filters remove both sludge and water; LEE flame-proof Air Filters prevent under-hood fires caused by carburetor backfire. See your jobber today for the details.

**LEE FILTERS pipe profits into your pocket**

© 1960 • LEE FILTER CORP., Edison, N.J. / In Canada: 267 Niagara St., Toronto, Ontario

quarters. The rubber cups are available in assorted sizes at most variety stores.—Glen F. Stillwell, 340 Ninth Street, Manhattan Beach, California.

### Unclogging the Falcon's Gas Tank Vent Tube

WHEN the Falcon's gas tank vent tube is clogged by splash from the rear wheels, we correct the condition by removing the vent tube and installing it in a new location.

To accomplish this, remove the

vent tube and grommet from the present location on the floorpan. Drill a  $\frac{1}{2}$ " hole through the rear cross sill about 6" from the rear. Cut 2" off the end of the vent tube and insert it with grommet installed into the new location. Plug the original hole with sealer. This procedure will place the vent tube outlet behind the rear cross sill, thus providing the necessary protection against clogging.

Incidentally, on complaints of fuel starvation and collapsed gas tanks, check for this condition.—James D.

Martin, Service Manager, Jack Hughes Motors (Ford), 100 E. San Antonio, San Marcos, Texas.

### Unlocking the Hood On English Fords

ON THE Anglia model of English Fords the hood latch is situated at the rear and when, for various causes, it cannot be unlocked, it is impossible to reach it from the outside without causing serious damage to hood or cowl.

However, the latch is easily accessible by removing the hood hinge cap screws situated under each front fender. This will allow the front of the hood to raise sufficiently to unlock hood latch with a slender screwdriver or other suitable tool.—Lynn F. Snoddy, 1622 Vivian Street, Shreveport, Louisiana.

### Watch That Polarity On Valiant Battery

VALIANT has issued the following service bulletin for its field service:

Extreme caution must be exercised when installing a battery, attaching a battery charger or using a booster battery to start a Valiant car, in order to prevent extensive damage to the electrical circuits which can result from reverse polarity or excessive voltage.

**Important:** In all cases where a "fast charger"-type battery charger is to be used on a Valiant car, both of the car's battery cables must be disconnected from the battery. Never use a "fast charger" as a booster to provide the starting voltage.

When using a booster battery the negative lead of the booster battery must be connected to the negative (ground) terminal of the battery and the positive lead to the positive terminal of the battery.

**Caution:** Reversing the polarity on an alternator system will immediately burn out the wiring harness and may possibly damage the alternator.

It is extremely important to make all members of both your sales and service departments who may have the occasion to either install a battery, use a battery charger or a booster battery on cars equipped with alternators, aware of the above instructions. We, therefore, recommend that a qualified member of your service department instruct all the abovementioned personnel in the proper procedure for installing batteries and attaching chargers and booster batteries.

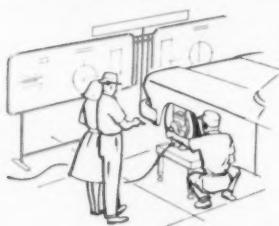


Frankly, We're Still Amazed

...we started aligning wheels as a side service, but now our two busy Hunter Lite-A-Line units make it a major part of our business. We average 100 jobs a month, and Lite-A-Line's ease-of-operation, accuracy, customer-satisfaction and low initial cost sold us! We hope to add another Lite-A-Line unit soon!"

DON DOBBS  
Don Dobbs Automotive Specialists  
Bayless at Morganford  
Saint Louis, Missouri

## The BEST Wheel Aligner For You, Too!



There's A Reason Lite-A-Line sales have skyrocketed... over 90% this year alone! Word of Lite-A-Line's many unexcelled, exciting features has spread. So, before you get into profitable wheel aligning or modernize older equipment, and before you buy, be sure to check Hunter Lite-A-Line. You'll be glad you did!

### 25 Versatile Models To Choose From!

to HUNTER ENGINEERING COMPANY SAJ 1060

Hunter Avenue and Ladue Road, St. Louis 24, Mo.

Please send complete information on the

- Hunter Deluxe Tune-In Wheel Balancer
- Hunter Lite-A-Line Wheel Aligner

Name .....

Address .....

City .....

State .....

LITE-A-LINE

with Built-In  
Merchandising

Appeal...

# the original equipment precision...

... of Brand New  
Holley Pep Carburetors  
and Pep Kit Parts Assures  
Customer Satisfaction



When you sell a Holley Pep Carburetor or use Holley Pep Kit parts for a minor carburetor overhaul, you're doing more than making a sale. You're giving your customer components of new-car quality and assurance of dependable performance.

Holley Pep Carburetors for Ford-built and American Motors cars are brand new, and manufactured to the same exacting specifications as Holley *Original Equipment* Carburetors. And Pep Kits contain genuine Holley parts identical with those they replace. You can always sell Holley with confidence—its *original equipment precision* is your assurance of customer satisfaction.

## THE COMPLETE LINE OF CARBURETION AND IGNITION EQUIPMENT



Pep Carburetors—  
Engineered to Original  
Equipment Specifications



Pep Carburetor Kits  
—Original Equipment  
Parts for Minor Overhaul



Genuine Holley  
Ignition Equipment



Genuine Holley  
Voltage Regulators



Genuine Holley  
Generator and Starter Parts

**HOLLEY**  
*Carburetor Co.*

RT-41

11955 E. Nine Mile Road, Warren, Michigan

Original Equipment Manufacturers for over 55 Years • See your Holley Distributor—Check the Yellow Pages

## Dealer Insurance Plan Set Up by Renault

**G**ROUP life insurance providing coverage of up to \$15,000 for eligible personnel is being offered by Renault, Inc., at no cost, to key executives of its 800 franchised dealerships throughout the United States.

Under the plan, officials of Renault dealerships that have sold a monthly average of at least 15 Renault vehicles over a six-month period are eligible. The policies

range from a minimum of \$5,000 for the sale of 15 to 30 vehicles a month to a top of \$15,000 for the sale of 150 or more, in the cases of all such dealer officials under 65 years of age. Separate schedules are available for executives over 65 and for new-car sales managers.

## Finance Official to Talk To Tennessee Dealers

**W**AYNE Singer, vice president of Associates Investment Co., South Bend, Ind., will address the

Tennessee Automotive Association to be held at the Andrew Johnson Hotel in Knoxville April 30-May 1 and 2.

Other speakers will include Dr. Charles E. Irvin, businessman and executive of Ormond Beach, Fla., and Charles E. Cullen, sales training specialist of Charlotte, N. C.

## Soil-Cement Road Paving Marks 25th Milestone

**A**SILVER anniversary in road-building will be observed this fall in South Carolina.

Twenty-five years ago the first scientifically controlled road constructed of soil-cement was completed by the South Carolina Highway Department. With the opening of the one-and-a-half-mile project, the way was cleared for construction of more than 24,000 miles of soil-cement paving in the United States and Canada, plus millions of additional square yards over the globe from Alaska to Guam.

A quarter-century after its completion, the same secondary highway near Johnsonville is in daily use, serving an increasing traffic load. In the early months following its opening, it served only a few hundred vehicles per day. The load has increased to more than 2,000 vehicles per day, and the soil-cement base reportedly has actually gained in strength.

Engineers looked upon the Johnsonville venture as a revolutionary idea that might provide a satisfactory pavement at low first cost. During 1959, alone, 46,000,000 square yards of soil-cement were put in place, according to Portland Cement Association statistics.

## NADA Will Promote Salesman Training

**A**PLAN by the National Automobile Dealers Association to establish a national education program for automotive salesmen is meeting with enthusiastic reception by the industry.

That is what J. Saxton Lloyd, chairman of the special committee appointed to prepare and recommend a proposal to the NADA directors at its meeting in Detroit this month, has reported. The former NADA president and Daytona Beach, Fla., Buick-Cadillac-Opel dealer revealed that franchised dealers, dealer associations, salesmen and even salesmen's wives have endorsed the committee project.

The program is designed to attract and hold competent young men in dealers' sales ranks.

**IT'S SHAPED  
IT FITS  
IT'S INSULATED**

**ARMOR-FLEX  
REPLACEMENT**

**FLOOR MATS**

Floor mats that are 2 to 3 years old start showing signs of wear. A simple suggestion from you will result in a profitable sale. Tell 'em you can install, in a few minutes, a tailored mat that's shaped to fit over the hump—a mat that fits snug in all corners—a mat that's made of heavy rubber with a thick insulating felt back.

Suggest Armor-Flex Replacement Floor Mats.

ORDER FROM YOUR FAVORITE JOBBER

**DOAN MANUFACTURING**  
1725 London Road • Cleveland 12, Ohio  
A DIVISION OF ANCHOR INDUSTRIES, INC.

# Winter Checkup Profits Depend on the Plans You Make Right Now

Cold weather is on the way. And that means the big profit season for both service and parts—if you make the proper plans—MoPar plans!

First, make sure now that your shop is adequately staffed so it can handle an extra volume of service work. Because MoPar replacement parts install so quickly and easily, your service men can do more jobs, make customers happy, keep profits up.

Second, make sure now that your parts department is geared for action. Take advantage of MoPar's Balanced Stock Plan and Inventory Control, which makes certain you will have the right parts at the right place at the right time.

Make your plans for the winter season right now. Get on the phone and call your MoPar Wholesaler or your Valiant, Plymouth, Dodge, De Soto, Chrysler or Imperial Dealer. He'll work with you to help turn your plans into profits!



The smartest buyers are sold on the best—MoPar



PARTS AND  
ACCESSORIES

MoPar Parts and Accessories  
Chrysler Motors Corporation, Detroit 31, Michigan



LOOK WHO DEALERS FROM COAST TO COAST



HAVE CHOSEN AS THEIR QUEEN!



**AUTOLITE**  
SPARK PLUGS

*Here's your winner! MISS AUTOLITE FOR 1960*

The votes are in, over 100,000 of them! Dealers from coast to coast have elected Miss Suzy Smith from 12 beauty finalists to reign as *Miss Autolite for 1960*. (Vital Statistics: born in Knoxville, Tenn. Blue eyes. Blonde hair. A curvy 35-23-34.) Above, Dave Garroway crowns her queen to climax another big spark plug promotion from Autolite. For Suzy this means a guest appearance

on the Garroway NBC-TV "TODAY" Show as well as appearances in Autolite sales regions across the country. We're pleased to pass on a "thank you" from this year's Miss Autolite to all the dealers who voted for her and to remind you: Keep your eye on Autolite. Another big spark plug promotion will be coming your way . . . soon!

Don't miss "News on the Hour," NBC Radio-and the election news with Dave Garroway, NBC-TV "TODAY" Show—sponsored by Autolite.

**AUTOLITE® SPARK PLUGS**

## Door Handles, Locks

(Continued from page 67)

procedure. Check operation of lock cylinder and lock before installing water deflector, door trim assembly and hardware parts.

Disassembly and assembly:

1.—Remove cylinder assembly from door.

2.—Remove retaining clip and pawl (Fig. 5).

3.—Carefully bend open your cylinder housing scalp tabs and remove scalp.

Note: While removing scalp, hold cylinder cap, which is under tension from cap springs. After scalp is removed, observe position of spring and cap so they can be re-installed in same relative positions.

4.—Remove cylinder from cylinder housing.

5.—To install, reverse removal procedure.

1960 Ford:

Door locks:

Lubrication:

The accessible parts of the locking mechanism should usually be

lubricated periodically and in the course of a service operation. A seized lock can sometimes be freed by using lock lubricant as follows in the course of a service operation:

1.—Striker plate and nylon sliding block contact surfaces: Apply stainless stick-type lubricant.

2.—Lock rotor: Apply stainless stick-type lubricant to the rotor teeth. Apply one or two drops of fine oil to the rotor bearing.

3.—Lock cylinder: Three or four drops of lock fluid.

4.—Apply Lubriplate to all new moving parts and to the window regulator mechanism.

Front door lock and/or linkage replacement:

Fig. 6 shows the lock assembly, remote control and connecting linkage. When replacing any linkage, note the routing and positioning of the links and rods.

### Replacing Lock Assembly

To replace a lock assembly, proceed as follows:

1.—Remove the door trim panel.

2.—Remove the remote control screws and disconnect the remote control link at the door lock.

3.—Disconnect the actuating rod at the door lock.

4.—Disconnect the door lock pushbutton rod and outer actuating rod at the plate and bellcrank.

5.—Remove the door lock retaining screws and remove the lock, with the pushbutton rod attached.

6.—Transfer the pushbutton rod.

7.—Position the door lock (with the pushbutton rod attached) in the door and install the lock retaining screws.

8.—Connect the retaining rods to the door lock (Fig. 6).

9.—Connect the remote control link to the lock assembly and secure the remote control to the door inner panel. Adjust the remote control assembly.

Lock cylinder or outside door handle replacement:

When a lock cylinder is replaced, both door lock cylinders and the ignition lock cylinder should be replaced in a set. This will avoid carrying an extra key which will fit only one lock.

1.—Remove the trim panel and pull the water shield away from the access holes.

2.—Remove the outside handle retaining screws and pull the handle away from the door.

3.—On a front door, disconnect the actuating rod and remove the door handle. Do not lose the large and the small pads.

4.—Remove the retainer screw and



## TUBELESS TIRE PATCH!

Here is the new CAMEL Chembond Patch which is easily applied to make a tubeless tire or tube repair by chemical action for their life-long service. Apply this patch either cold or hot! It's light weight and flexible, has a more tacky face and extremely tapered feathered edge.

CAMEL Chembond Cement is the active reactor that completes the chemical action . . . quickly, surely



PACKAGED:  
40 Small Round  
30 Medium Round  
30 Small Oval  
20 Medium Oval

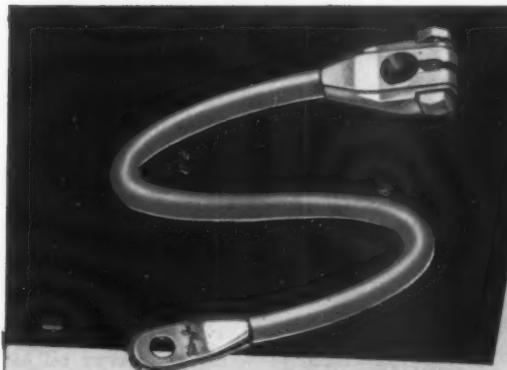
Write for detailed information

H. B. EGAN MANUFACTURING CO.  
MUSKOGEE, OKLAHOMA TORONTO, CANADA



**Dealers "in the know"**

# SELL WIRY JOE!



## WIRY JOE 12 VOLT BATTERY CABLE ASSORTMENT

- Complete coverage for all 12 volt cars and trucks.
- A dozen assorted cables packed in eye-catching display carton.
- Assortment contains two 9, 15, 20, 23 and 43 inch cables, and one each in 30 and 38 inch lengths.



Sell Wiry Joe—made and backed by the largest independent manufacturer specializing in wire and cable engineered specifically for the automotive replacement market.

## WIRY JOE BATTERY CABLE

- Special lead alloy terminal eliminates corrosion
- Patented spring steel insert permits repeated flexing
- Red plastic FIRE-GARD® insulation—5 to 7 times more resistant to oil, abrasion, acids. Will not support flame
- New shell-type lug for quicker, easier installation in tight spots in modern cars.



## WIRY JOE AUTOMOTIVE WIRE AND CABLE

- Tough, dependable, quality tested.
- Packaged in the dispensing box that really works.
- For all automotive applications.



remove the retainer, spring, cylinder and seal from the handle.

5.—Position the seal, cylinder, spring and retainer in the handle and install the retainer screw.

6.—Position the pads and the handle on the door and connect the front door actuating rod.

7.—Install the handle retaining screws and check operation of lock.

8.—Install the water shield and the trip panel.

**Why not make \$7?  
They did (page 122).**

### Duals Unaffected by F-85, Says Manager of Olds

ARRIVAL of the F-85, Oldsmobile's smaller car, "will have no effect on duals," Jack F. Wolfram, vice president of General Motors and general manager of the Oldsmobile Division, asserted last month at the annual press conference at Detroit.

An editor had inquired what might happen where Olds dealers already have one or two additional franchises, including smaller cars.



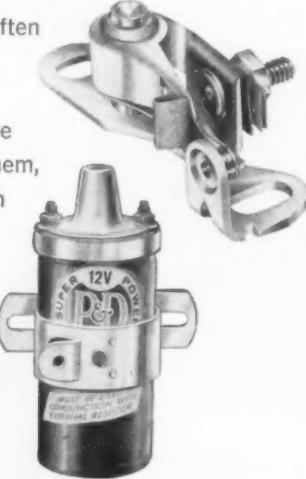
General Manager Wolfram

## HERE'S THE PROFIT—AND THE P&D-IZE PROGRAM TO HELP YOU GET IT

For example—just say to a customer "We'll P&D-ize your ignition system and give you a whole year's warranty on the new P&D parts installed."

Wouldn't that sell almost any car owner you know? Sure it would! But that's only part of the big 7-point P&D-ize program developed by your automotive wholesaler and P&D.

Ignition tune-ups are the most often needed and the most profitable part of the service business. Now—with the P&D-ize program—you can get more of them, more easily, more profitably than ever. Ask your P&D wholesaler or write us now!



**P&D MANUFACTURING CO., INC.**

STARTING - LIGHTING - IGNITION

19-02 STEINWAY ST., LONG ISLAND CITY 5, N.Y.

Export Sales: Borg Warner International, 36 So. Wabash Ave., Chicago 3, Ill.

Isn't a larger inventory of new cars inevitable under such an arrangement? he was asked.

"Well, if I were a dealer, I'd want to have an adequate inventory," he replied.

Olds dealers handling additional lines like Rambler and Studebaker "are going to have to decide what they should do about it," Wolfram said.

His division expects to sell as many regular-size Oldsmobiles in '61 as in '60, with F-85 sales being plus business, he said.

Speaking optimistically about the outlook for the auto industry, Wolfram noted estimates that 6,800,000 new cars would be sold this year.

"In 1961 I look for at least that many—maybe 7,000,000," Wolfram said. "Over the years the automobile business will continue to grow and Oldsmobile is prepared to grow with it.

"Oldsmobile is moving forward in many ways," he added. "Our employment in Lansing is increasing. Before the end of October, 1,100 more people will have been hired. We have installed a brand-new assembly line for the F-85, and have just completed a new service parts warehouse with 750,000 square feet under one roof.

"Nearing completion is a 26,000-square-foot building adjacent to our shipping department," Wolfram said. "Here, just before the car is shipped, all F-85's, 88's and 98's will undergo a recheck of all electrical components—batteries, radios, heaters, electrical seat adjusters, automatic window regulators, as well as a recheck of all lights.

"Here, too, a temporary coating is applied over the finish of the car to protect the paint and chrome during shipment. This is a part of our reliability program to insure the car reaching the customer in as near perfect condition as possible."

# FREE! A Shockproof, Non-Magnetic Timex Watch with this handy set of **Snap-on FLEXOCKETS®**

BUY THE FLEXOCKETS AT THE REGULAR PRICE. GET A NATIONALLY ADVERTISED WATCH FREE. DO IT NOW—WHILE THEY LAST.\*



Here is the complete package — a handsome Timex watch and the SNAP-ON 208B-FU-B FLEXOCKET set in a metal box. This 3/8" drive set includes 5/16" and 3/8" single-hex FLEXOCKETS; 7/16", 1/2", 9/16", 5/8", 11/16", 3/4" double-hex FLEXOCKETS.

Here is a real value. If you've never owned SNAP-ON FLEXOCKETS before, you'll get a new experience in timesaving convenience. The way their swiveling socket heads slip into tight spots and cut down work time, these slim, trim FLEXOCKETS pay for themselves in short order.

In addition, you get a fine American-made watch free — with a full year's guarantee against defective workmanship. And you don't pay a

nickel extra for the beautifully chromed FLEXOCKETS either. The watch is a free gift to you from SNAP-ON.

But the supply is limited, and the offer ends December 17 or sooner if the watch supply is exhausted. So get yours the very next time your SNAP-ON man calls. He has them right in his truck. And while he's there, ask him for the big, new SNAP-ON catalog. It's yours for the asking.

\*OFFER GOOD IN U.S.A. ONLY

CHOICE OF BETTER MECHANICS  
**SNAP-ON TOOLS**  
8052-J 28th AVENUE • KENOSHA, WISCONSIN



A new grille and modest ornamental changes identify the 1961 Comet models of the two- and four-door sedans and the two- and four-door station wagons. In addition to the standard 85hp engine, an optional 101hp six is being offered in 1961.

## Booming Small-Car Market

WHILE Chevrolet and Oldsmobile sales executives asserted at press conferences at Detroit recently that they looked upon their smaller cars (the Corvair and F-85) as sources of "plus" business which should not be cutting too deeply into sales of their regular lines of cars, here's what Board Chairman and President L. L. "Tex" Colbert of Chrysler Corp. said at the Chrysler press conference at Miami Beach last month:

"One of the most unmistakably clear demands made by the customer in recent years is for cars in the so-called low-price sector of the market. All of you are familiar with the trend and I will only remind you that since 1955 the cars we normally think of as being in the low-price sector, including Plymouth, Dodge Dart, Ford and Chevrolet, the small imports and the American-built compacts, have increased from a 55.4% share of the market in the first seven months of 1955 to 74.9% in the first seven months of this year. And by the end of this year, with the introduction of four new compacts, the cars in that class will be selling about 80% of the market."

"The major portion of this gain was achieved by increases in the low-price sector of the market. In the first seven months and 20 days of 1959, when Plymouth was our only entry in this sector, it accounted for 7.3% of the U. S. new-car retail sales of American-built cars.

"In the similar period of 1960, Plymouth, Valiant and Dodge Dart have accounted for 13.2% of that same market. And with the addition late this month of the Dodge Lancer to our product offerings in this sector of the market, we will make further penetration.

"Our gains have been made in part because we have paid special attention to the price class that is now dominating the automobile market. But this isn't the whole story. In addition, we have brought to market the kind of automobiles that give customers the performance, comfort, handling characteristics and the over-all value they want."

One thing is certain: The compacts have made a terrific impression, at least, on the manufacturers and they're creasing their brows in hopes of coming up with the best solution.

SEE YOUR NEAREST

**DIXIE STEEL**

BUILDING DEALER

### ALABAMA

**Anniston**  
The Concrete  
Products Co.  
520 W. 21st St.  
P.O. Box 287  
PHONE: AD 7-2091

**Birmingham**  
Atlantic Steel Co.  
Steel Bldg. Division  
P.O. Box 3067  
Avondale Sta.  
4230 - 1st Ave., South

**Dothan**  
Hollis & Spann,  
Contractors  
202 S. Alice St.  
PHONE: SY 2-1391

**Huntsville**  
Putman Const. Co.  
120 Leeman Ferry  
Rd., SW

**Montgomery**  
American All-Steel  
Bldgs. Co., Inc.  
P.O. Box 3182  
1701 Owens St.

**Piedmont**  
Ellis-Allen Tractor Co.  
104 N. Main St.  
PHONE: GI 7-4561

**Tuscaloosa**  
Charles Temerson  
& Sons  
P.O. Box 378  
2104 - 4th St.  
PHONE: PL 2-1506

**FLORIDA**  
Gainesville  
H. A. Lee Steel Co.  
1800 N.E. 23rd Blvd.  
P.O. Box 605  
PHONE: FR 6-7741

**Jacksonville**  
Atlantic Steel Co.  
P.O. Box 2614  
1641 Landon Ave  
PHONE: EX 8-5231

**Largo**  
Bailey Builders, Inc.  
420 Indian Rocks Rd.  
PHONE: JA 4-1454

**Ormond Beach**  
Tom Daugherty  
Steel Bldgs.  
666 Buena Vista Ave.  
PHONE: OR 7-1868

**Riviera Beach**  
Wambaugh Steel  
Bldgs.  
333 Linda Lane  
P.O. Box 86  
PHONE: VI 4-1995

**Sarasota**  
Atlas Construction,  
Inc.  
1027 N. Washington  
Blvd.  
P.O. Box 1418  
PHONE: RI 7-0727

**Tallahassee**  
J. H. Dowling & Son  
705 W. Madison  
P.O. Box 308  
PHONE: 2-2616

**Tampa**  
Atlantic Steel Co.  
4126 N. Armenia Ave.  
PHONE: RE 6-3563

**GEORGIA**  
**Albany**  
Dixie Const. Co.  
216 S. Mock Road  
PHONE: HE 5-4011

**Atlanta**  
Atlantic Steel Co.  
Steel Bldg. Div.  
1300 Mecasin St., NW  
P.O. Box 1714  
PHONE: TR 5-3441

**Augusta**  
M. H. McKnight &  
Son Const. Co.  
1490 Wrightsboro Rd.  
P.O. Box 63  
PHONE: PA 4-8208

**Brunswick**  
F & H, Inc.  
P.O. Box 960  
PHONE: AM 5-2641

**MacOn**  
Dixie Metal Co.  
2014 Riverside Dr.  
P.O. Box 1002  
PHONE: SH 3-7437

**Savannah**  
Savannah Iron &  
Fence Corp.  
East President St.  
Extension

**Thomasville**  
H. & H. Const. &  
Supply Co., Inc.  
P.O. Box 576  
PHONE: CA 6-5533

**MARYLAND**  
Hagerstown  
Callas Contractors, Inc.  
P.O. Box 1065  
PHONE: RE 9-8400

**NORTH CAROLINA**  
Charlotte  
Roebuck Bldgs. Co.  
P.O. Box 8012  
2400 Wilkinson Blvd.  
PHONE: FR 5-1294

**Winston-Salem**  
True Wall Steel Co.  
738 East 28th St.  
P.O. Box 4024  
PHONE: PA 3-2494

**SOUTH CAROLINA**  
Charleston  
C. C. Rhodes Lumber  
Co.  
441 Maybank Highway  
P.O. Box 3315  
St. Andrew Brn.  
PHONE: SN 6-1656

**Columbia**  
Roebuck Bldgs. Co.  
726 S. Edisto Ave.  
PHONE: AL 4-2942

**Roebuck**  
Roebuck Bldgs. Co.  
P.O. Box 128  
Highway 221  
PHONE:  
Spartanburg 5-2401

**TENNESSEE**  
Chattanooga  
Southern Sales &  
Export Co., Inc.  
627 Shallowford Rd.  
PHONE: OX 8-2315

**Clarksville**  
Thomason & Reece  
College at Second St.  
P.O. Box 733  
PHONE: MI 7-5245

**Columbia**  
L. S. White & Co.  
1118 S. Garden  
P.O. Box 582  
PHONE: EV 8-9123

**Dyer**  
Stockton Iron Works  
Highway 45 W., North  
PHONE: 3428

**Jackson**  
Hubert M. Owen  
Const. Co., Inc.  
373 N. Cumberland St.  
PHONE: 2-3321

**Johnson City**  
J. E. Green Co.  
Division St.  
P.O. Box 270  
PHONE: 707

**Memphis**  
John Cassidy Const.  
Co.  
801 Roland St.  
PHONE: BR 6-7341

**Nashville**  
Herndon & Merry,  
Inc.  
510 - 39th Ave. N.  
PHONE: CY 8-3303

**VIRGINIA**  
Portsmouth  
James T. Copley, Inc.  
2618 New Suffolk  
Highway  
PHONE: HU 8-2531

**WEST VIRGINIA**  
Beckley  
Meadows Lumber  
Co., Inc.  
P.O. Box 1571  
701 S. Eisenhower Dr.  
PHONE: CL 3-5887

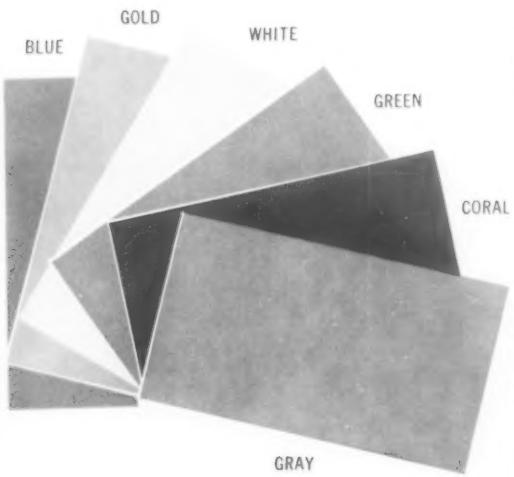
**DIXISTEEL**



**DixiRib**

## PERMA-COLOR PANELS

add New Beauty and Versatility to **DIXISTEEL** BUILDINGS



Your DIXISTEEL Building can be as bright and beautiful as you want it. Six modern, compatible colors offer unlimited opportunities in style and appearance. And the distinctive design of DIXIRIB Panels takes full advantage of light reflection and shadows to further enhance the beauty of DIXISTEEL Buildings.

DIXIRIB Perma-Color Panels are roll-formed from 26-gauge galvanized coiled sheet. They are 100% plumb and true every time, fit together easily and perfectly. The two-coat, baked-on vinyl enamel finish will last for years—resists corrosion, weather, rust, and abrasion.

DIXISTEEL Buildings offer you a low-cost, quick way to have a modern, colorful building for any purpose. Get the facts from your nearest DIXISTEEL Building dealer, or . . .

TEAR OFF AND MAIL THIS COUPON FOR FULL INFORMATION

Yes!

Please send me data and information on DIXISTEEL Buildings

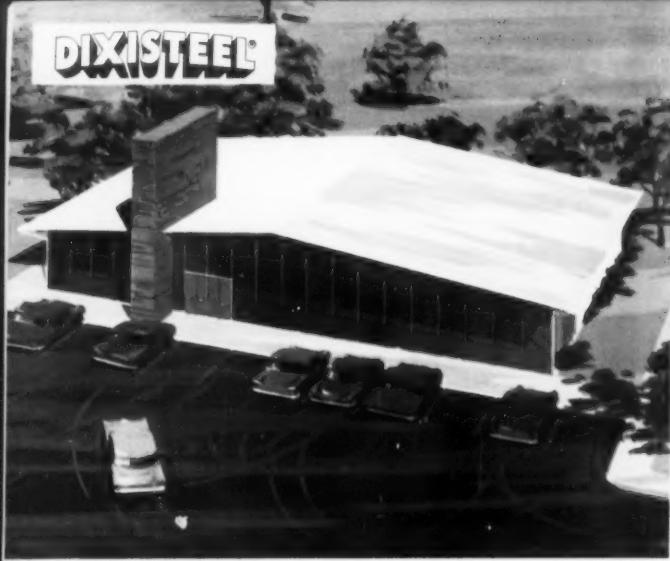
NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

1  
2  
3  
4  
5  
6  
7  
  
9  
10  
11  
12  
13

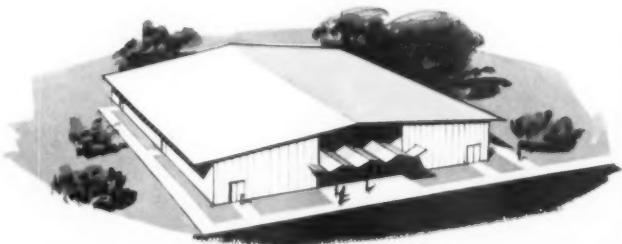


## Any type or style of building... all clear span... full length

There are 183 basic designs in the DIXISTEEL Building line from which any combination can be made to provide buildings of any size or type, with either standard 4:12 or Lo-Line 1½:12 roof pitch. All are clear-span, free from columns or posts. Standard lengths are based on *inside dimensions* to provide maximum interior floor space and simpler adaptations for masonry fronts. There are many outstanding features your DIXISTEEL Building dealer can tell you about.

### CHEAPER THAN RENT—LOW COST FINANCING AVAILABLE

DIXISTEEL Buildings cost so little, more often than not it is cheaper than renting. DIXISTEEL Building dealers can arrange for complete financing at low cost with as little as 25% down and the balance payable over a period of 10 years.



The distinctive design of DixiRib Panels not only adds to the beauty of DIXISTEEL Buildings, but provides greater strength and rigidity, and improved drainage. Ribs are one-third higher than previously. Wall panels can be any length, and roof panels up to 20 feet, eliminating unsightly overlapping. An improved drain groove in the side lap provides drainage of moisture created by capillary action.



**BUSINESS REPLY CARD**  
FIRST CLASS PERMIT NO. 549, ATLANTA, GA.

**Atlantic Steel Company**  
**Steel Building Division**  
**1300 Mecaslin Street, N.W.**  
**Atlanta 1, Georgia**

**DIXISTEEL BUILDINGS**  
are backed by the makers of

**DIXISTEEL**  
ATLANTIC STEEL COMPANY  
ATLANTA, GEORGIA

# EXIDE'S SURE-SELL KIT ZOOMS BATTERY PROFITS!

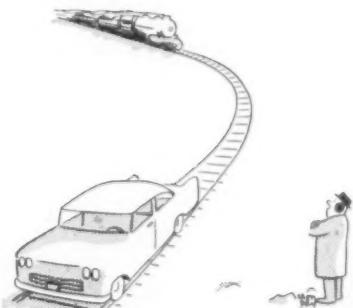
## FREE EAR MUFFS

This Exide wears earmuffs just for looks. Even sub-zero weather won't bother it. But how about your prospects? Ask your Exide dealer (he's in the Yellow Pages) for a free battery check-up and take home your gift earmuffs.

You get the free earmuffs whether or not you decide to buy one. Exide batteries are built with A.S. 57, our revolutionary manufacturing process that stretches out battery plate life in shade or sunshine. You get a winter guarantee from the company that has built batteries longer than anybody else.

\*Anti-Sulfation 57, successfully highway-tested since 1957.

When it's an Exide...you start!



For a better way to start your car,  
get an Exide battery.

## FREE BAR-B-Q MITT

This quilted 14" mitt protects your flesh-turning hand—just as an Exide battery protects your car's starting power. Don't wait for your present battery to leave you in the lurch. Ask your Exide dealer (he's in the Yellow Pages) for a free battery check-up and take home your gift Bar-B-Q Mitt.

The mitt is yours free whether or not you decide to buy a new Exide. All



HERE'S WHAT YOU GET IN THE EXIDE SURE-SELL KIT



**1 ONE EXIDE SURE-START BATTERY  
ORIGINAL EQUIPMENT GRADE**



**2 50 EARMUFFS  
FOR NORTHERN  
STATES**



**OR 50 BAR-B-Q MITTS  
FOR SOUTHERN AND  
WESTERN DEALERS**



**3 ONE EYE-CATCHING WINDOW STREAMER  
36" x 15"**

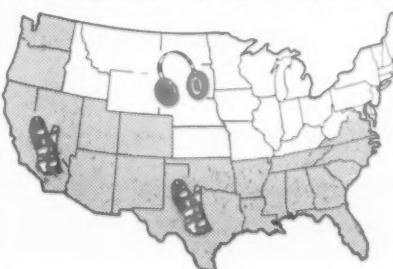
**5 BATTERY CHECK-UP REMINDERS  
TO GIVE YOUR CUSTOMERS**

**4 ONE 18" x 20" POSTER**

**6 TWO BATTERY SALES  
"SCORECARDS"**

## ALL FOR ONLY \$24.45

Get an Exide Sure-Sell Kit and capitalize on Exide's startling advertising during your peak battery-selling months. Prospects in the northern part of the U.S. (see map) will read this 4½" x 12" double-header Exide ad with the free EAR MUFFS offer in LOOK, POST and five motor and sports magazines. Drivers in the south and west will see the same-size Exide ads, offering a useful BAR-B-Q MITT free at any Exide dealer's.



These two offers—keyed to your kind of winter weather—will pull in drivers for a battery check-up and frequently a new battery. Your battery sales and profits skyrocket when you sell with Exide. Ask your Exide distributor now for details. Exide Sales, Automotive Div., Box 6266, Cleveland 1, Ohio.

## Chevy Manager Sees No Market For Car Smaller Than Corvair

*Do you see any potential for a car smaller than the Corvair?*

I don't see any real potential in this country at this time. Look at the reduction in registrations for the import cars which has occurred this year, especially on the West Coast market. We have seen the registration of foreign cars drop

from 18.2% down to less than 10% in the California markets. Nationally, imports are down about 20% and we feel that that is an indication that a lot of people are not interested in this real small min-type car.

Because of Corvair's success in these traditionally strong import



General Manager Cole

Ford Motor Co. is known to have been experimenting with a car smaller than the Falcon for nearly three years, with an eye on clipping the market in which Volkswagen, Renault, etc., have done so well. Now you read here where the general manager of Chevrolet Division, Edward N. Cole, sees no market ahead for a unit smaller than the Corvair, a competitor of the Falcon. These are excerpts from the recent annual Chevrolet press conference. Questions by editors are italicized and the replies were by Cole.

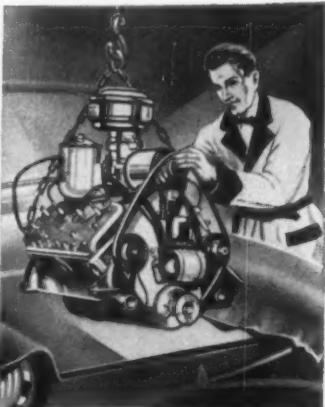
**Mustang Mike**  
Says...  
**LOOK Fella! THESE MUSTANG REPLACEMENT ENGINES**  
**They're Money-makin' Whizbangs!**



• Dealers net easy \$12 per shop hour profit  
• Complete installation in 6 hours clears decks for another job  
• Customer confidence and national acceptance thoroughly established through POST advertising

**DEPENDABLE**, precision-built MUSTANG REPLACEMENT ENGINES are proved big ticket, big profit items for any car dealer, garage or service station. Profit heaped on profit is assured from the sale of related parts plus liberal allowances you get on trade-ins.

**MUSTANG** comes as a complete package, *with all the gaskets*, all ready to uncrate and install as the sweetest running engine your customers ever had. Your jobber will cheerfully explain how to "get going" with the fabulous MUSTANG volume line.



**"Better built for better performance"**



**MUSTANG ENGINES**

330 INTERNATIONAL ROAD • GARLAND, TEXAS

*Why did you decide to remove the flared gull-wing from the full-sized car?*

Sometime ago we saw a tendency

among the buying public for cars which were less ostentatious and with less flare. As a result, we went toward a more refined styling with the right simplicity, yet its own identity. That is the same reason why we pulled our size down just a little bit for 1961.

To come back to these smaller cars, aren't you planning on building some Corvairs with a smaller-than-normal wheelbase?

We have nothing in our foreseeable future that calls for a smaller car than the Corvair.

How about the Greenbrier? Isn't its wheelbase less than the Corvair's 108"?

Yes, the Greenbrier has a 95" wheelbase. I thought you were talking about a full-size car. The Greenbrier we classify as a sports wagon—a completely different concept.

As far as contracting the regular passenger cars, we have nothing in the works at all. The Greenbrier is our latest thing we are offering, and there is nothing in the foreseeable future that is different on that, either.

#### The Compact Truck Market

What do you estimate the sales potential for compact trucks?

In our smaller trucks, we feel—as I said before—that something over 40,000 will be our first year's potential. That includes the Greenbrier also, which drops right into that same family. However, a lot of people tell us that we are very conservative in this estimate and they think we are going to do better than that.

For several years you have been shooting at the medium-price market. Now the medium-price market is shooting at you. Is it going to have any effect on your sales?

In 1960 Chevrolet sold 38% of its total regular passenger cars in the Impala line, which is 6% more than 1959. So it is difficult to see why people want to back down. We can't get that feel. Having sold 1,500,000 of the full-sized cars this year, you can understand why we are reluctant to abandon that position.

Now whether or not in 1961 we will continue to have the same strength in the upper bracket that we had, say, in '59 and '60—particularly with the other manufacturers offering their new smaller car—is a good question. That is why in 1961 we have probably given press people more room for speculation than at any time in the history of our business.

For example, we don't know

## Lifting Equipment for Every Service Need

Heavy jobs are faster, easier, safer

with **FLEET**  
**CRANES**

No.  
5-90



### TRUCK MOUNTED UTILITY CRANE

½ Ton-1 Ton

Rugged, low cost cranes for mounting on delivery or service trucks. Adjustable telescoping extension boom, standard at no extra cost. Put extra mounting wells in several trucks, at machine tools, etc. for greater crane usefulness. Manual-hydraulic and electric-hydraulic models.



### HYDRAULIC MOBILE SHOP CRANES

You can move these cranes to any spot in the shop—wherever there's heavy lifting to be done. Save time, money and backache lifting and moving heavy motors, machinery, boxes and crates. Built for long, trouble-free service.

No. 5-87

½ Ton

No. 5-88

¾ Ton

No. 5-89

1 Ton

Write for complete  
information and price



**EDGEWATER**  
**AUTOMOTIVE DIVISION**

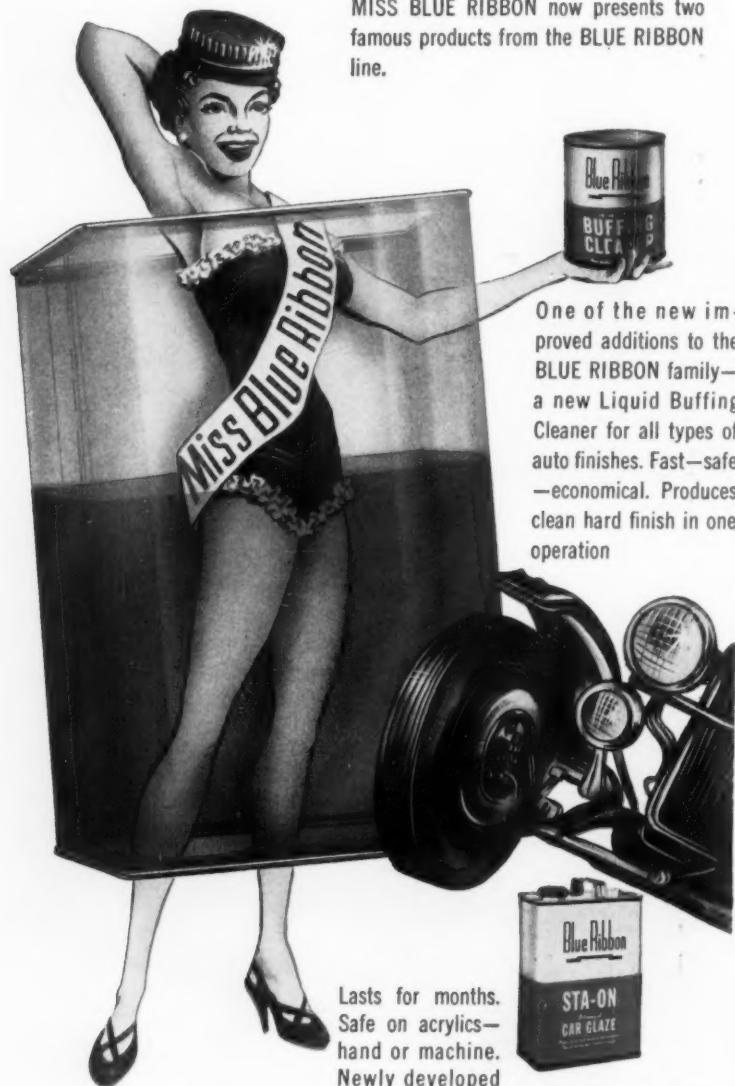
SAINT JOSEPH, MICHIGAN

# Preserve Natural Beauty...

## Remove Film...

...with BLUE RIBBON Cleaners,  
Polishes, and Waxes

MISS BLUE RIBBON now presents two famous products from the BLUE RIBBON line.



Lasts for months.  
Safe on acrylics—  
hand or machine.  
Newly developed  
glaze of superior quality with silicone base. Easy to apply—cleans and glazes.

Distributorships now available for BLUE RIBBON products in some areas.

INTERNATIONAL METAL POLISH CO., INC.  
INDIANAPOLIS 7, INDIANA      OVER 50 YEARS EXPERIENCE

whether people will be just trading down into a smaller package. Or will we be able to retain our traditional volume of sales in the regular-size cars and get new business with our new entries.

Also, will the sales of new cars be really new business or will they come out of our own hides—or some competitor's hides? Or will it come out of the used-car potential? No one knows.

We say the new-car business for 1961 is a total of 7,000,000 opportunities, and I tell you we are going to go out and get just as big a piece of that as we possibly know how to get.

*Do you have any new transmissions this year?*

We do have one new transmission, a four-speed fully synchronized one for the Corvair. That's all.

*Nothing has been changed in the automatic?*

No, the Powerglide and the Turbo-glide will continue as they were in 1960, and they were highly successful in 1960.

### The Outlook for Sixes

*What is going to happen to the demand for six-cylinder engines?*

The demand for our six has been steady. As you know, we were perhaps the last ones to come into the eight-cylinder field. As a result, we had a lot of customers who were familiar with our very reliable six. We have never had the same sales success with the eight as some of our competition, but on the other hand, they have not been able to match our recent success with sixes, either. This year, we are running in the area of 46% sixes and the balance eights for our full-size cars. This ratio has changed only slightly in comparison with 1959, although the eights did gain a little because of the popularity of our new lower-priced economy V-8 engine. We think our 1960 ratio is about where we will level off for awhile.

*Do you care to comment on the number of sales in the smaller-car market for the 1961-model year?*

I was hoping no one would ask me that, because I don't think there is a single person today in our industry who can evaluate where this market is going. I would say there will be an increase in penetration, but not nearly to the extent that a lot of people are forecasting.

*Will the Corvair maintain its share of the smaller-car market as it has this year?*

With the addition of these new models, it is our firm belief we will increase our penetration in the

smaller-car market.

Where will the new Corvairs be produced?

The passenger cars will be produced in the same plants that produced them this year, namely Willow Run, Kansas City and Oakland. The Corvair 95 series, however, will be produced in St. Louis and Flint and they will be distributed from those two plants.

Can you match the performance and economy of the smaller cars to be offered by Buick, Olds and Pontiac?

As you know, we haven't had our hands on those cars yet, and we don't know exactly what they have done. We chase them around once in a while to see if we can't find out. But frankly, I don't think they can do anything or have anything really new that is not available to us, and I think we can match the economy and performance of anything that any competitor has to offer, and that includes the new GM cars.

#### Corvair May Reach 350,000

How many Corvairs will you sell this year and next?

I will put it on the model-year basis, if that is all right. We will sell 251,000 of the 1960-model Corvair, and next year we are planning something over 300,000 and it could go as high as 350,000.

If there is an increase in Corvair sales, would it affect the sale of your so-called full-size cars?

I would say it this way: In those market areas where the Corvair has had exceptional success, especially on the West Coast, we are not quite as strong with our full-size car. Whether that is an indication that would apply all over, we are not sure. But we are finding that there are an awful lot of people interested in a car of the Corvair type that are not interested in the full-size car.

The Corvair is getting a lot of plus business for us because of its design and the type of car it is. In our Pacific Coast region, where 26% of all of our sales are Corvairs—and in the Los Angeles zone it runs as high as 30% Corvairs—our full-size car is down about 7% from last year. Any time that Corvair penetration seems to run anywhere near 20% of our total market, we start to pull back the opportunity for our full-size car to a degree.

How many of the five new Corvair models will you sell during 1961?

Between 40,000 and 50,000 of the

## Lifting Equipment for Every Service Need

For Faster, Easier Service Lifting . . .

# FLEET

### Hydraulic and Air-powered ONE-END LIFTS



Transmission adapter for  
Model 5-41 handles all car  
and light truck transmissions

The handiest service jacks made. Take your choice of manual-hydraulic operation or air powered from your shop line for fast, safe, easy one-end lifts. Lifts all cars at points recommended by manufacturers. 1½ tons capacity. High lift attachments for both models.

## EDGEWATER AUTOMOTIVE DIVISION

SAINT JOSEPH, MICHIGAN



new lighter trucks. (Four new models excluding Lakewood station wagon.) The station wagon is tied in with the passenger car, which gives us greater opportunity.

The reason I am sure we have great opportunity in 1961 with the Corvair is because we brought more lines into the market. We started only with the four-door sedan. It was not until late January that we had a two-door to go along with it. Then we decided to dress up the two-door and call it the Monza, and we just have not been able to pro-

duce enough of them since. So you cannot quite figure out what the picture is today. When we finished the Corvair model run, we were turning out 42% of our volume in Monzas. This is the highest-priced car in the line, and they were in short supply. So we feel we are on the right track with the Corvair.

We think with the added models—the Monza for the full year, the station-wagon and Greenbrier—that we have a great opportunity to do well over 300,000 units in 1961, even in the face of our newest competi-

tion.

*Do you have any idea what percentage of the Corvair sales is represented by the so-called two-car family?*

We do not have a good reading on it. I will hazard a guess. From some of the data I have seen, possibly 35 or 40% of Corvairs are sold to so-called two-car families. That is my guess. We had a reading earlier, but we have not had one recently.

*What are your plans for a Corvair convertible?*

We are not planning one currently and I will tell you why. The convertible sales in our regular lines run somewhere in the area of 5 to 5½%. If we sell 1,500,000 regular cars and say 5% in convertibles, that would be about 75,000 convertibles. If you apply that percentage to the Corvair, and if we sold, say, 300,000 Corvairs, this would mean only 15,000 to 20,000 convertibles.

If we put all of the cost of tooling into that quantity or volume, it would make the cost of this convertible prohibitive. It is as simple as that.

Saying it another way: It is not economically feasible at this time to introduce a Corvair convertible.

*How about horsepower? Is it up or down?*

We have not increased the horsepower on the standard engine, although the displacement is up about five cubic inches. On the high-performance installation—or the "power pack"—that goes with the Corvair, the horsepower is up a little bit.

*What is the difference in weight between the regular line and the Corvair?*

I would say on the average it is pretty close to a quarter of a ton difference.

*What is the length, width and over-all dimensions of your regular cars?*

Actually, we are going to 1.5" shorter and 2.4" narrower. The hardtop models are going to be a little higher than they were in 1960, but the four-door sedan is slightly lower. We put two more inches of headroom in our hardtop models for 1961 compared with 1960.

#### **McCool Dies in Chattanooga**

Harry F. McCool of Chattanooga, past president of the Tennessee Automotive Association, died last month. A charter member of the association, McCool was its president in 1944.

# **Shurhit**

## *World's Finest Ignition*



Costing no more than other brands, Shurhit is truly the "WORLD'S finest IGNITION"—backed by an unqualified factory guarantee of complete customer satisfaction.

Shurhit is a complete line—covering all cars, trucks, industrial, marine and small engines. Sales and Training Aids, Service Data and Tune-up information, plus a merchandising program second to none, makes Shurhit a profitable line for you to handle. Why not get your share of this profitable tune-up business today! Contact your Shurhit Jobber NOW!



**Shurhit PRODUCTS, INC.**

Waukegan, Illinois

I'M TIRED OF BEING \*SOAKED!

\*WITH BIG  
JACK REPAIR  
BILLS



Aren't you, too?

It's easy to  
Repair-it-yourself  
with a Jack-Pack Kit.  
Prices start at about \$2.50.

Order from your jobber



or write for FREE FOLDER "Facts on Jacks"

JACK-PACK MFG. CO., 2115 N. Marianna Ave., Los Angeles 32, Calif.

## Look for these NEW "Tools for '60"



No. DU-68 "Reversible" Clutch Head Screw Driver. Two most popular clutch head screw sizes on one tool. \$1.60 ea.



No. DD-211 "Delco" Distributor Tool. Helps you change distributor points easier and faster. \$1.50 ea.



No. BT-47 "Bendix" Brake Tool. Made of chrome vanadium steel. For all late model cars. \$1.30 ea.



No. HK-17 Hex Key Wrench Set. Seven piece set has most popular sizes. Fits pocket or tool box. \$1.30 ea.



No. SP-19 Electric Tester and Probe. Tests spark plugs, ignition coils, electric outlets. \$1.20 ea.

by **VACO**

Ask your jobber salesman to show you the new VACO Walking Display . . . which features all the new specialty numbers illustrated in this ad. Or, look for them at your Jobber's . . . on VACO's colorful Counter Cards.

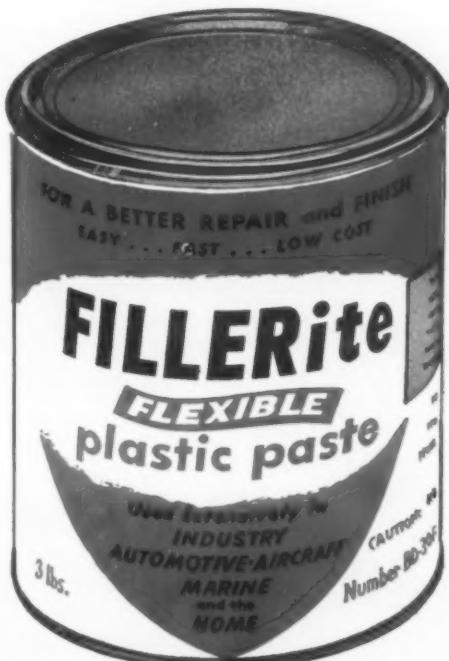


Free Catalog Sheets On All Items Available From:

**VACO PRODUCTS COMPANY**, 317 E. Ontario St., Chicago 11, Ill.

In Canada: VACO LYNN PRODUCTS CO., LTD., Montreal 1, Que.

# NOW



## TAKE YOUR CHOICE you get **2** from FILLERite

**CURE-IT 6-18 CREME**

Quick, neat . . . with just the right consistency for easy dispensing from its unbreakable plastic tube . . . Cure-It 6-18 Creme combines smoothly and safely with FILLERite plastic paste to form a tough, flexible filler so perfect for all repair work.



**CURE-IT 4-20 POWDER**

Proven Cure-It 4-20 Powder Catalyst gives you the top quality you have come to expect from FILLERite . . . always. Cure-It 4-20 is the choice of repairmen who mix to different consistencies for different jobs.

**IT'S YOUR CHOICE**

Decide for yourself which you prefer . . . Creme or Powder . . . and write for free samples or descriptive literature.

**BAIRD**

**DYNAMIC CORPORATION**

1400 Stratford Ave. • Stratford, Conn.

# POWERFUL! DEPENDABLE!



## Heavy-Duty SANDER-GRINDERS

7" dia. Model U-177 \$89.50

9" dia. Model U-199 \$94.50

Dollar-for-dollar you can't buy more power, better performance, or greater dependability than in a MILWAUKEE Sander-Grinder. These features are proof:

**Exclusive** Coaster Brake Clutch Drive — absorbs back lash shock, doubles gear life.

**Exclusive** Spring Steel Backing Disc Assembly — flexible, lightweight, perfectly balanced, dissipates heat quickly for cooler operation.

**Powerful**, no-stall, full 1½ HP MILWAUKEE-built motor for every day heavy-duty service.

**Perfectly balanced** for easy handling.

**Full** ball and roller bearings throughout.

**5000 RPM**, ideal speed for grinding, sanding, and wire brushing.

Only MILWAUKEE offers so much in a heavy-duty Sander-Grinder — power, performance, and dependability that mean increased output at lower costs . . . and more profit for you.

See your MILWAUKEE Distributor today or write for Bulletin SG-3.

**MILWAUKEE ELECTRIC TOOL CORP.**

5314 West State Street • Milwaukee 8, Wisconsin



## Less Car Product Loyalty Cited by Ford Official

THE AMERICAN car buyer is showing less product loyalty in his car purchases. Rather, he's being more discriminating and making up his own mind as to what he will buy each time he goes into the new-car market.

That opinion came last month from Ben D. Mills, a vice president of Ford Motor Co. and general manager of the Lincoln-Mercury-Comet Division, in an interview with SOUTHERN AUTOMOTIVE JOURNAL at Atlanta.

"We are witnessing a complete revolution in the buying conception," said the executive, who was born in Vian, Okla., in 1915. "People are going to make up their own minds" and as a result there will be "less product loyalty." There'll be some loyalty to a manufacturer's over-all line, he added.

If the public wants a four- or, he said facetiously, a three-cylinder car, Ford Motor Co. will build it. He declined to discuss the four-cylinder car with which Ford currently is reported experimenting.

Sales of the strictly compact cars should account for a minimum of 35% of all car sales next year, Mills said, compared with around 30% this year. "They could go as high as 50%," he added.

Comet sales from the debut of the compact last March 16 had aggregated 116,000 through mid-September and Mills said that his facilities were prepared to produce 300,000 or more in the new model year, should there be that demand.

The executive spent his early youth in Stillwater, Okla., where one of his hobbies was tinkering with old cars. He attended Oklahoma A & M in 1932-33.

## Oklahoma Dealers to Hear Jim Moore of NADA

JAMES C. Moore, executive vice president of the National Automobile Dealers Association, will be a headliner on the 27th annual convention program of the Oklahoma Automobile Dealers Association scheduled for Nov. 6-7 at the Skirvin Hotel in Oklahoma City.

The South Carolina native will discuss the recent wage-hour battle which NADA fought in Congress, as well as the all-out effort which will be required during the upcoming session of Congress in January to preserve dealers' retail exemption in the field. Kickoff speaker will be Russell B. Holloway, Oklahoma City attorney and humorist.

A Gay Nineties party following the banquet will conclude the convention. It will be complete with barbershop quartet, Gay Nineties musicians and dancers and other activities.

## Studebaker Makes Bender Vice President

Roy B. Bender has been named vice president of the Automotive Division by directors of Studebaker-Packard Corp. He will retain his present position as parts and service division manager in addition to his new title.



Vice President Mills



This "X-51 Satellite Special" was born from an engineer's imagination. When Norm Card (left), Southern regional manager of Blackhawk Automotive Division, told Joe Johnson (in rear), the chief engineer, that the firm needed a new jack to service Sputniks, etc., Johnson made up this "jack." It was sent to Card's home in Memphis for his birthday, much to the delight of the Card children. Bill King, territory manager who headquarters at Charlotte, N. C., appears at the right.

## Number of Unsafe Cars Drops For First Time in 13 Years

RESULTS of the 1960 National Vehicle Safety-Check program show an all-time low percentage of vehicles in unsafe operating condition.

For the first time in the 13-year history of the annual campaign, one out of every six cars and trucks going through local check lanes and dealer service departments was found to need immediate service attention to at least one of the ten items affecting safe driving condition. For the last five years, one out of five vehicles had been found with at least one unsafe item. A total of 3,200,000 vehicles were checked this year.

The Vehicle Safety-Check is sponsored by the Auto Industries Highway Safety Committee and *Look* magazine, with the cooperation of the Association of State and Provincial Safety Coordinators.

The voluntary Safety-Check program is conducted annually during May and June in states not requiring official motor vehicle inspection.

For the sixth year in a row, rear lights headed the list of items most often found in need of attention. These were followed in order of frequency by front lights, brakes, exhaust systems, and tires. The percentage incidence of faulty rear lights was also the highest ever—31.2%. For the first time since 1951, the percentage of windshield wipers needing maintenance attention exceeded that of steering mechanisms. For the second straight year, brakes were in third place. However, the percentage of defective brakes uncovered was the lowest on record at 13.6%.

Catching the eye... in National Magazines  
at Auto Shows... in Dealer Showrooms...

# CITROËN

THE WORLD'S  
MOST COMFORTABLE CARS



DS19 and ID19-5 Passengers

In the automotive market today only the car that offers exclusive features and quality engineering will remain a profit maker for the dealer.

Only a factory organization can maintain high standards in both their technical supervision and their advertising program. With Citroen, the factory is here to help the dealer.



STATION WAGON-8 Passengers

With the addition of the 8 passenger Station Wagon and the "Prestige" Limousine, the Citroen potential for a wide profit has never been better. Future additions to the Citroen line will give the dealer a wider price range.

Citroen gives its Dealers every advantage; delivers a wide margin of profit, requires only a minimum stocking of tools and parts, provides a free Service School for mechanics (with mobile service units to call on you), supports you with national-local advertising, and sets you up with a liberal initial promotional allotment, and a great variety of literature.

### AN AUTHORIZED CITROËN DEALER FRANCHISE MAY STILL BE OPEN IN YOUR AREA

*It pays to get all the details by mailing this coupon today!*

#### CITROËN CARS CORPORATION

Direct Factory Branches of S. A. André Citroën, Paris, France  
121 West 50th Street, New York, New York  
8423 Wilshire Blvd., Beverly Hills, California

SAJ-10

GENTLEMEN: Please send me full details on obtaining an authorized Citroen Dealer Franchise.

Name \_\_\_\_\_

Company Position \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



Left: Featuring an exclusive hinged side-loading ramp, the new Chevrolet Corvair 95 Rampside pickup truck offers low loading height, easy handling and a high proportion of cargo space to overall size. It is powered by the rear-mounted 80hp Corvair air-cooled engine. It has a 95" wheelbase. Loading height is 14" from ground at the side opening and 26.5" at the rear gate. Right: The Corvair 95 Corvan light-duty panel truck features wide access doors and low load floor height. Cargo space is 191 cubic feet and maximum load capacity is 1,800 pounds. It, too, has the 80hp engine.

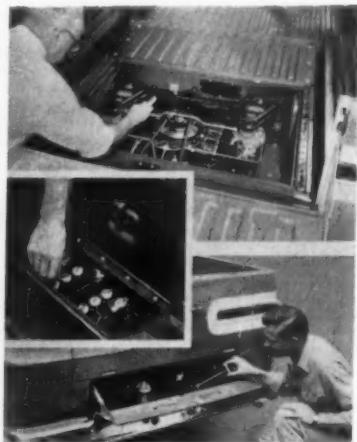
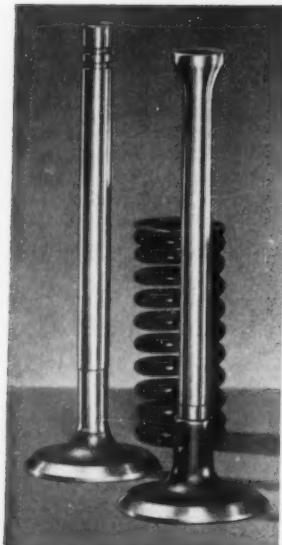


"I'LL TELL YOU EXACTLY WHAT THIS CAR NEEDS - A FEW DRIVING LESSONS."

*motor jobs turn out sweeter  
when you install . . .*

## Manley airchrome valves and springs

Manley Valve Corporation, 15th St. & Fairmount Ave., Philadelphia 30, Pa. Supplier to leading original equipment manufacturers. District Sales Representatives: Hirsig-Brantley Co., Jacksonville; J. S. Connell Co., Dallas.



Top: Easily removable floor panel gives access to Corvair 95 engine for normal tune-up and adjustment operations. Center: Battery checking is convenient through hinged panel in left-hand rear wheelhouse. Bottom: Access door above bumper on Corvair 95 affords day-to-day servicing and checking of engine.

### Suggs Dies in South Carolina

John Robert "Bob" Suggs, pioneer Horry County (S. C.) automobile dealer and a former director of the South Carolina Automobile Dealers Association, died recently. Suggs began his automotive career in mechanical work as a boy in Loris. His Dodge-Plymouth-Pontiac agency, organized in 1939, is now the oldest dealership in the county.



The introduction in early 1961 of the four- to five-passenger, two-door convertible, Chapron, has been announced by S. A. Andre Citroen of Paris, France. The custom-made body is fashioned along the neo-classic lines found in other Citroen models, and like those models it features front-wheel drive, air-oil suspension, disc brakes and automatic jacking. Optional features include power steering, power brakes and automatic clutch. The convertible's appointments include leather upholstery available in 11 different colors, a choice of 13 different body colors in 76 possible color combinations and three different carpeting colors. The top is made of black cylon. This is the manufacturer's first convertible since 1939. It will be priced at approximately \$4,000, P.O.E., New York.

## Plymouth, De Soto Valve Spring Is Changed

PLYMOUTH, De Soto and Valiant have issued the following service bulletin:

Effective approximately May 26, 1960, with TorqueFlite "8" transmission serial No. 1657763 and TorqueFlite "6" transmission serial No. 163771, a new reverse blocker valve spring, part No. 2204493, entered production. The new spring is designed to reduce the possibilities of the reverse blocker valve sticking in the valve bore. If the reverse blocker valve sticks, it prevents the manual valve from moving into reverse when the (R) reverse control button is depressed.

If a condition of no reverse is encountered on late-production 1959 and early-production 1960 TorqueFlite "8" transmissions (one-piece valve body transmission), or on a TorqueFlite "6" transmission, the cause may be due to the reverse blocker valve sticking. In these cases, it is recommended that the valve be removed and inspected for burrs and foreign material on the valve and in the valve bore. If the valve is clean and operates freely in its bore, reinstall the valve and install the new improved reverse blocker valve spring, part No. 2204493.

The new spring has an over-all unloaded length approximately 5/32" longer than the spring previously used, and ten effective coils instead of the 11 coils used on earlier springs.

## Falcon Preserves Styling (Continued from page 62)

inch engine, Falcon will offer an optional 170-cubic-inch, six-cylinder engine rated at 101hp.

Both Falcon engines operate on regular-grade fuel. Both Falcon sixes also have a new "snorkel type" air cleaner that results in quieter operation, more uniform air flow and smoother high-speed engine operation. Engine front covers

are cast from aluminum for better sealing.

A new, optional automatic choke also is available with either engine.

Two transmissions — three-speed manual shift and Fordomatic — can be matched with either the standard or optional engine. Heavy-duty transmission and drive-line components are used with the Falcon 170 Special.

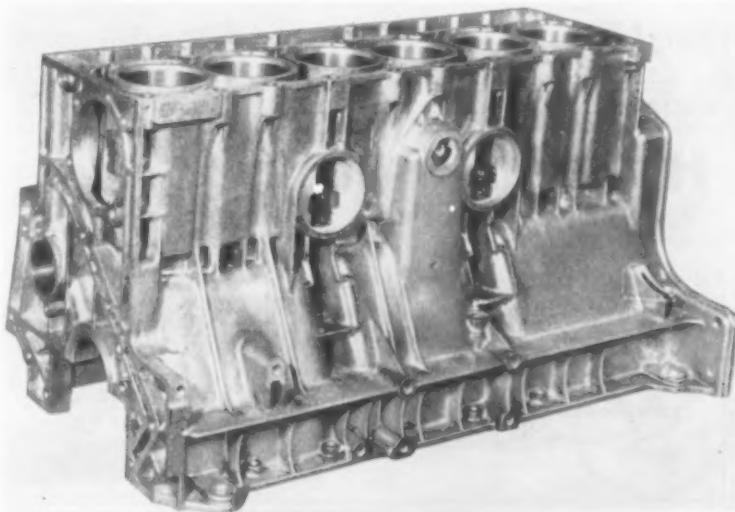
Falcon station wagons have a crank-down tailgate window, with power-operated control optional. Falcon wagon load space length is more than seven feet, with a volume of 76.2 cubic feet — comparable to the 1957 Ford station wagon.

The Falcon exhaust system features a new, double-wrapped aluminized muffler which reportedly lasts three times as long as conventional mufflers. Between the aluminized inner shell and the zinc-coated outer shell is an asbestos wrapping which provides quieter operation and faster warm-up, minimizing corrosive action resulting from the exhaust products.

The Falcon body is of unitized construction, with the front fenders being bolted on for easy repair or replacement. This construction combines strength and rigidity with minimum weight.

"Lower costs for parts and repair have resulted in lower insurance rates for the Falcon," Wright pointed out. "In most areas, the Falcon costs up to 15% less to insure than standard-size cars."

This is the aluminum die-cast block being used on the 1961 Rambler Classic six-cylinder engine. It is the first aluminum engine block produced in America for passenger-car use by the die-cast method. The block is made of special aluminum-silicon alloy for hardness and controlled temperature expansion. Centrifugally cast iron cylinder liners are chemically and mechanically bonded to the block. For other photos of this engine, turn to page 34.



# Texans Hear of Mechanic Shortage

UNLESS immediate steps are taken to correct a growing shortage of mechanics in Texas, motorists may have to start repairing their own automobiles in five years.

This was the warning sounded by G. C. Morris, executive secretary of the Automotive Wholesalers of Texas and guest speaker at the Independent Garagemen's Association of Texas convention at Amarillo

Sept. 2-4.

Appearing before a dinner meeting at the Herring Hotel, Morris attacked what he called the state legislators' "cotton patch and cow pasture" thinking, and pointed to the fact that, "Texas spends five times as much to train future farmers and homemakers as it does for all forms of industrial education."

More than 200 registered for the

three-day meeting, which was the 14th semi-annual convention of the association. Delegations from 21 of the 27 local affiliates or chapters were on hand for the initial business session, which was held on Friday, Sept. 2.

Before they left on Sunday—or in most cases Monday morning—delegates searched for ways to improve mechanics' training in the state, heard guest speakers on insurance, selling and financing and listened in rapt silence while President Edward Archer of Waco gave a detailed report on the recent unsuccessful attempt to reconcile differences between the state association and the Independent Garage Owners of America. Archer's report was given at the final business session on Sunday.

Talking slowly and with noticeable emotion, Archer recounted the fact that two meetings between the Independent Garagemen's Association and the IGOA had been held without reaching agreement. The first was between himself and H. F. Reagin of Atlanta (then president of IGOA) in Dallas on March 25.

The second meeting, involving four representatives from each association, was held in Jackson, Miss., May 7. This is Archer's account as read from the minutes of a previous

## ★★★ A REAL DEAL FOR DEALERS ★★★

**10 FREE CLAMPS!**  
(Value \$3.50)



THE NEW Hy-Gear

# BONUS-PAK

FREE CLAMPS! EXTRA PROFIT!  
That's Ideal's new Hy-Gear Bonus-Pak! Contains 110 Hy-Gear hose clamps in the five fastest moving sizes—You pay for 100—get 10 more free—for \$3.50 extra profit.

NO CATCH—NO CLINKERS—Just the assortment you need for brisk seasonal sales.

**Hurry!**—Bonus deal for limited time only.  
Contact your Jobber now!



## Hy-Gear

the Champions hose clamp

For seven straight years Ideal Hy-Gear hose clamps have been on every car at the Indianapolis Speedway. Torture-tested over a grueling 500 mile course, you have proof positive that when you sell Hy-Gear you sell quality.



G. C. Morris of Austin, executive secretary of the Automotive Wholesalers of Texas and one of Texas' leading advocates of industrial training in the state, blamed the "cotton patch and cow pasture" thinking in Texas for the fact that auto mechanics' training is found in only 30 of the state's 1,700 high schools. Morris was a guest speaker at the Independent Garagemen's Association convention in Amarillo.



Promote safer motoring with

# NEW WESTINGHOUSE AUTO SAFETY-KIT



**SAFETY-CHECK YOUR CUSTOMER'S CAR** at each servicing, and recommend that he carry the new Westinghouse Auto Safety-Kit in his glove compartment. It's a terrific way to create good will—and to make new profits, too! Each kit holds 3 miniature lamps—perfect for emergency situations, they fit the safety light sockets of almost any car on the road. Attractive, see-thru plastic packs sell themselves on sight. Promote safety—and make new profits—order your special 10-pack display merchandisers today!

HURRY! LIMITED TIME ONLY! SPECIAL BONUS DEAL!  
WESTINGHOUSE SAFE-T-BEAM HEADLAMPS & WESTINGHOUSE  
AUTOMATIC COFFEE MAKER!

Sell 24 Safe-T-Beam headlamps—get an Automatic Coffee Maker for your home FREE! Call your Westinghouse Automotive Bulb Supplier for complete details today!

You can be sure . . . if it's  
**Westinghouse**





Twenty-one local chapters were represented and more than 200 delegates and guests registered at the Independent Garagemen's Association of Texas convention at the Herring Hotel, Amarillo, September 2-4. Only a portion of the attendees are shown here.

# MAN MOST LIKELY TO SUCCEED IN '60

**He Took PACCO'S  
Course In  
Carburetor Tune-Ups**

He spent three hours with a man from Pacco—world's top maker of carburetor tune-up kits. He sharpened his skill, and walked out with a diploma to prove it. Plus an illustrated Pacco Service Manual that shows how to take the torture out of the toughest tune-up. He'll walk away with more tune-up business this year. He could be you...if you enroll now for Pacco's 1960 Service Training Course. See your Pacco Man, or write



**PRECISION AUTOMOTIVE COMPONENTS COMPANY  
Manchester, Mo.**



board of directors' meeting:

"The Dallas meeting was, in my opinion, a constructive one. Although Mr. Reagin and I did not agree on several issues, our relationship was cordial and we were successful in laying the groundwork for the Jackson meeting. It appeared that the differences of our two associations could be reconciled. I felt that we had made real progress.

"By the time I met Mr. Reagin and his representatives in Jackson, however, his attitude had changed almost 100%. Instead of discussing the points we had outlined in Dallas, Mr. Reagin would answer, 'You will have to comply to the IGOA's bylaws.' Now this placed us in a difficult position insofar as our discussions were concerned. We do not have a copy of the IGOA's bylaws in spite of the fact that I have requested, and have been promised, a copy on three separate occasions.

"As you may know, one of the big differences between our two groups has been on the question of allied or associate contributors or members. We are accused of enrolling new-car dealers into our association which, in turn, makes us pawns of the new-car factories. This is so ridiculous that I will not waste time discussing it here other than to say that this will certainly come as a surprise to the Texas Automotive Dealers Association.

"On the other hand, we raised several interesting questions in regard to their (the IGOA's) allied members. It is no secret that the IGOA has always depended on its allied members for a large portion of its budget. When I questioned Mr. Reagin if this meant they were building their association on thin ground, he replied that he did not think so. We then questioned the IGOA representatives regarding the status of its advisory board, which, as you know, is comprised of representatives from its allied membership. We wanted to know to what extent the IGOA relied on this advisory board and would the IGOA ever hesitate to vote against recommendations of this board in view of its members' financial support of the association.

"Again Mr. Reagin said no. I will not comment directly on his an-

# OLDSMOBILE FOR '61

**The Action-Line in Performance...  
The Fashion-Line in Design!**

CLASSIC **98**

SUPER **88**

DYNAMIC **88**

Distinguished . . . distinctive . . . decidedly new! Big-car roominess for driving luxury—more headroom, kneeroom, legroom—plus new ease of entry and the exhilarating performance of the new SKYROCKET Engine by Oldsmobile!

Glamor, comfort, prestige . . . and the utility of a full-size car! Exciting SKYROCKET Engine performance and smooth Vibra-Tuned Ride . . . both exclusive with Oldsmobile! Easy to get in . . . easy to sit in . . . a pleasure to drive!

Beauty . . . economy . . . spacious comfort! Livelier-than-ever Rocket Engine runs on lower-cost, regular gas! Plus Twin-Triangle Stability . . . and the alert handling ease you expect from a quality-built, full-size car!



Never before so much to be excited about: New Fashion-Line Design . . . new SKYROCKET Engine performance . . . new Hydra-Matic\* with Accel-A-Rotor action!

\*Standard on Classic 98 models; optional at extra cost on all other series.



**F-85**

**HOT NEW NUMBER  
IN THE LOW-PRICE FIELD!**

*...and every inch an Olds!*

An all-new kind of car in the low-price field—for more new business for you! Exclusive new aluminum Rockette V-8 Engine . . . a car that's sized and styled for the buyer who wants something better in the low-price field.

**IN '61 . . . IT'S BETTER THAN EVER TO BE WITH OLDS!**

OLDSMOBILE DIVISION, GENERAL MOTORS CORPORATION, LANSING, MICHIGAN

swer, but in view of what came out at our meeting I cannot help but make this observation: Gentlemen, in my opinion, you belong to the only independent, independent garagemen's association that I know anything about in this part of the country."

Most of the business sessions were devoted to mechanics' training and trying to find a better way to coordinate the functions of the state association's office. A ways and means committee was finally appointed to study the state associa-

tion's activities and a report will be made at a January board meeting.

On the subject of mechanics training, the garagemen heard B. L. McLendon, Beaumont, give a report on this year's Southern States Apprenticeship Conference in Miami and then outline a step-by-step procedure for setting up an apprenticeship program in every city in Texas.

At the public school level, delegates were told that only 30 out of Texas' 1,700 high schools are presently offering auto mechanics' instruction. The garagemen were

asked to go back home and have a heart-to-heart talk with their state representatives and senators in an effort to get the appropriation for industrial training increased to \$263,825 by 1962 and to \$296,539 by 1963.

The three-day meeting got underway with a general assembly at 9 a.m. Friday and wound up with a trip to nearby Palo Duro Canyon on Sunday. Sandwiched in between were a buffalo barbecue served at Boys' Ranch, 35 miles west of Amarillo; a rodeo staged especially for delegates; an antelope breakfast; a dinner dance; a square dance and four business meetings. The largest door prize among more than 50 given away was a camping trailer won by F. M. Danels, Houston garage owner.

### Louisiana Safety Checks Slated for January

Louisiana will start safety inspection of around one million motor vehicles at some 3,000 inspection stations in January, according to Public Safety Director Murphy Roden.

Automobile repair shops meeting requirements of the Department of Public Safety will be licensed to perform the inspection and charge up to \$1. Space requirements for inspection stations, Roden said, depend upon the type of headlight-testing equipment the station will use.

At least one approved mechanic capable of making inspections must be on duty at least eight hours daily and the station should also be equipped with adequate mechanic's tools. Use of brake testers or decelerometers is optional. If they are not used for a brake test, a road-test is required.

Garages must pay a \$10 license fee, post performance bond and pass inspection by the motor vehicle inspection section of the Department of Public Safety.

The inspections are called for under a new law.

### Atlanta SAE Hears Hogan

"Passenger Car Trends" was the subject of an address last month by Robert W. Hogan, chief automotive engineer, sales department, Ethyl Corp., New York, before the Atlanta, Ga., section of the Society of Automotive Engineers. Hogan was born in Meador, Ky., and received his bachelor of science engineering degree from the University of Kentucky in Lexington.

# CHAMPION

## with EXCLUSIVE OIL MONITOR

Prevents costly "down time" . . . guards your equipment against losses by automatically disconnecting the compressor when the oil level drops below normal operating range.

Champion Air Compressors are available in single and two stage models ranging from  $\frac{1}{4}$  to 20 Hp.

compressors/pumps/accessories

SEE OUR  
CATALOG IN  
SWEET'S  
OR WRITE FOR COPY

Representatives in  
Principal Cities

**CHAMPION**  
PNEUMATIC  
MACHINERY CO.  
PRINCETON 3, ILLINOIS

# COMPRESSORS



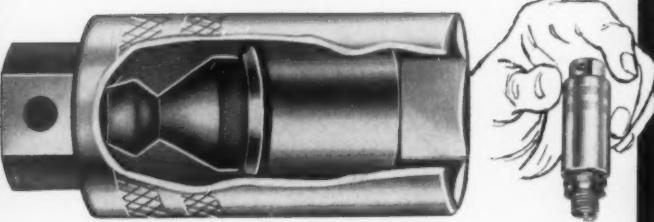
They're all necessary for proper performance, but what keeps the real "guts" in a National battery are the chemicals Silver and Cobalt in the positive plates (number 4). Through a patented construction process Silver and Cobalt armor coat the grids—provide up to 300% greater resistance to the nation's number one battery killer... overcharge. Silver-Cobalt also seals in the charge—gives the dealer longer shelf life, less weak outdated stock. National

batteries have real starting "guts"—assure you and your customers of the best battery available. Contact your National distributor today.

(1) cell cover (2) negative plate group  
 (3) strap (4) Silver-Cobalt positive plate group  
 (5) electrolyte  
 (6) hard rubber container  
 (7) BiPlak mechanical separators (8) plastic anti-splash vent cap

FILLED AT THE FACTORY • SEALED CHARGED AT THE FACTORY • FACTORY FRESH PERFORMANCE





**PROTO'S SPARK PLUG HOLDING SOCKETS**... Revolutionary neoprene insert prevents burned hands, cracked porcelains, damaged electrodes. Available in  $\frac{3}{8}$ " (No. 5026 HP) and  $\frac{1}{2}$ " drive (No. 5326 HP). Both sockets fit all standard 14mm plugs in domestic and foreign cars. Turn with fingers, flat wrench, ratchet, torquer. Look for counter display-demonstrator. You'll find over 2,200 quality Proto tools at Auto Parts and Hardware stores.

Professional performance guaranteed.

**TWO GREAT PROTO TIME-SAVERS!**



**PROTO UNIVERSAL IGNITION SET—No. 3200C**... Everything you need for fast, professional work on any ignition system. Includes eight  $15^\circ \times 60^\circ$  offset Midget Open End Wrenches, Gap Gauge Set, Midget Plier, Tungsten Point File, Aviation Type Screw Starter, and Screwdriver. In roll-up/hang-up Vinyl-treated kit. Separate pockets keep tools organized.

At your Proto Hardware and Auto Parts Dealers.

2207 Santa Fe Ave., Los Angeles 53, Calif. • 507 Allen St., Jamestown, N.Y. • 1707 Oxford East, London, Ont., Canada

## '61 Hawk Production Limited to 6,100

**S**TUDEBAKER-PACKARD's Hawk production will be limited to no more than 6,100 registered units in the 1961-model year.

L. E. Minkel, S-P marketing vice president, announced that special nameplates engraved with owner's names will be numbered in sequence from 1 to 6,100 and affixed to dash panels upon delivery.

"The Studebaker-Packard Hawk has become a classic of contemporary motordom," Minkel said. First introduced to the American public in 1953, the Hawk enjoys the longest continuity of design of any current automobile manufactured in the U.S.

The Hawk's distinctive design has been maintained for 1961. European-style bucket seats and four-speed transmission with floor shift enhance the Hawk's styling and engineering.

"Used-car auction prices demonstrate that the Hawk commands a higher resale value than comparable models," Minkel stated. "The decision to limit sales of this American-made classic to no more than 6,100 units in the 1961-model run guarantees buyers that the value of their invested dollar will be maintained."

## Practice Car Loans Hit Record High

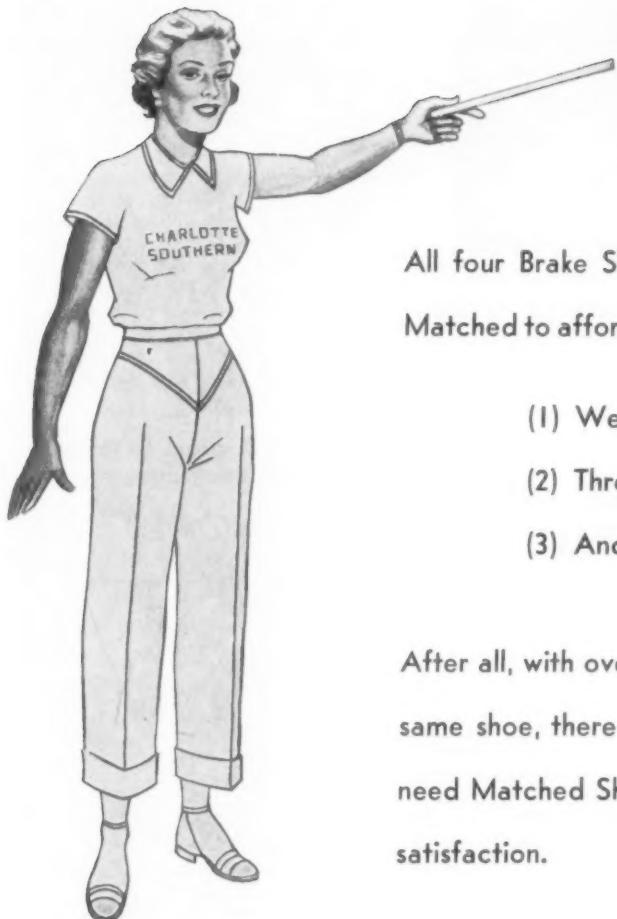
**T**HREE nation's new-car dealers provided a record high total of 13,805 practice driving cars for use in high school driver education courses during the 1959-60 school year, according to Auto Industries Highway Safety Committee figures.

Of the total provided, 8,415 cars valued at more than \$21,500,000 were loaned to schools free of charge.

Charles C. Freed, committee board chairman and a past president of the National Automobile Dealers Association, congratulated the dealers for their outstanding contribution to traffic safety, pointing out that support for high school driver education is a continuing public service activity of NADA.

"It is vitally important," he said, "that all teenagers be taught to drive properly by a qualified instructor at the time they are acquiring their driving habits. Surveys indicate that the driving records of properly trained youngsters are twice as good as those of teenagers who have not had such training."

# ANOTHER FIRST FOR SOUTHERN!



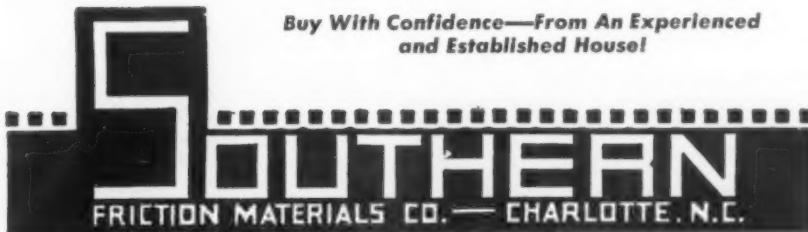
"M" STANDS FOR  
M-A-T-C-H-E-D

All four Brake Shoes in a box carrying our Big "M" are  
Matched to afford the same:

- (1) Web Thickness
- (2) Throat Construction
- (3) Anchor Cut-Out Location

After all, with over a dozen manufacturers now making the same shoe, there are bound to be variations. We feel you need Matched Shoes as well as High Grade Lining for full satisfaction.

Southern Double = Lock® shoes have been checked with gauges to insure Matching.



*Buy With Confidence—From An Experienced  
and Established House!*



## FOR THE DISCRIMINATING USER



### CLAW-PLAST BLACK ARMOR Flexible PLASTIC PUTTY FILLER



For the man who is concerned about doing a quality job . . . yet likes to keep labor costs down, here is the ultimate in patching compounds.

#### QUALITY FEATURES:

- Permanently Flexible!
- Fast-Curing!
- No Shrinkage or Embrittlement on Aging!
- No Fibre-Glass!
- Super Adhesion!
- Unexcelled Adhesion, Impact and Shock Resistance!
- Super-Smooth . . . Easy Spreading!
- No Soft-Spots, Pock-Marks, Pinholes or Blisters!
- Easy Sanding!
- Deodorizer Added!
- Long "Sta-Fresh" Shelf Life . . . Code-Dated!
- Very Low-Dust!

Also Ask Your Jobber For:

#### LOW-DUST SEMIFLEX . . .

GREY COLOR



UNCONDITIONALLY GUARANTEED

JOBBER AND DISTRIBUTOR INQUIRIES INVITED

#### CLAW-PLAST

Mfg'd by H. CLAUSEN & CO., INC.

1055 King George Rd. • Fords, N. J. • P. O. Box 24

### GM Will Present 1961 Motorama

PLANS for a seventh Motorama to present its 1961-model cars and trucks have been announced by General Motors Corp.

Scheduled to open Nov. 3 at the Waldorf-Astoria Hotel in New York City for a seven-day stay, the Motorama will visit the West Coast for the first time since 1956. Previous productions, offering the newest in automobiles and engineering advances, plus top Broadway entertainment talent, reportedly have been visited by more than 8,500,000 persons across the nation since 1950.

The show will afford an early opportunity for the public to see, under one roof, GM's complete offering of 1961 cars, including the new smaller cars being added to the Buick, Oldsmobile and Pontiac lines. Chevrolet and GMC trucks, Frigidaire appliances and products of a number of other GM divisions will also be displayed.

### Tarheel Dealers to Hear Of "Compact Impact"

POPULARITY of the compact and its effect on the automotive field will be covered by the fourth annual working conference of the North Carolina Automobile Dealers Association in Raleigh Nov. 18, the theme of which will be "The Impact of the Compact."

Speakers will be W. O. Bankston of Bankston Oldsmobile, Inc., Dallas, Texas; A. F. Goodman of Ohio Indemnity Co., Dayton, O.; Louis King of King Motor Co., Fort Lauderdale, Fla.; D. O. Wiggins, district sales manager of Ford Motor Co., Richmond, Va.; James C. Moore, executive vice president of the National Automobile Dealers Association, and Dr. George Heaton of Charlotte, N. C.

### U. S. Rubber Will Build Louisiana Pilot Plant

A \$2,000,000 pilot plant for trial production of a new class of synthetic rubbers called the stereo regulars will be constructed in Baton Rouge, La., by the Naugatuck Chemical Division of United States Rubber Co.

Construction is expected to start this year on a site adjacent to the division's plant in the Scotts Bluff area of the Louisiana capital, with completion anticipated in the fall of next year. Multi-ton batches of the synthetics will be produced for further evaluation in tires and other basic rubber products.

# Colbert Cites Key to Future Sales

There are many excellent reasons for confidence. The question is: Do the present high levels of business activity and personal income mean continued high levels in the coming year?

The answer may depend more upon the attitude of consumers, and especially the confidence of the American people concerning the future, than upon any other single factor.

At a time like this it is important to place the proper emphasis on the many sound reasons for confidence concerning the future. I have mentioned some of those reasons for being strongly optimistic. And in recent weeks, as I have talked with our own economists at Chrysler and with other well-informed businessmen in different parts of the country, I have become increasingly aware of an economic development that may be a better reason for confidence and optimism than any I have mentioned.

The development I refer to is this: In part as the result of a high degree of price stability over most of the past year, in part as the result of restraint in government spending and in part as the result of sound and realistic business spending for inventories, there is good reason to believe that the country may have avoided the pattern of inventory boom and adjustment that we experienced in 1949, 1954 and 1958, and which some people have been predicting for next year.

The low levels of activity in steel, home-building and petroleum that were experienced in the spring and early summer may have served to prevent an inventory adjustment later. I am strongly inclined to the view that we have already experienced our "rolling adjustment" and that business out ahead will be stable and rising.

The so-called inventory recessions during the postwar years have been getting sharper and shorter. And this is evidence of important progress in ironing out the ups and downs of business cycles. Among the factors contributing to this progress are the development of many built-in economic stabilizers, like private and public pension payments, the use of well-timed tax legislation, and actions by the Federal Reserve to encourage borrowing and investment.

Also of great importance is the



By L. L. "Tex" COLBERT  
Chairman of the Board and President  
Chrysler Corp.

Excerpts from an address at the annual press conference at Miami Beach last month.

dissemination of better information on economic conditions, which leads to sounder and more restrained action on the part of businessmen and to a clearer understanding and increased confidence among consumers regarding the country's basic soundness and strength.

Even in the automobile business—which has an unusually volatile market—there has been some stabilizing of annual sales volumes in recent years. Except for 1955, in which retail sales of new automobiles exceeded 7,000,000, and 1958, when they dropped below 5,000,000, the market for new cars in the last six years, including 1960, has been relatively level. The yearly average during this period has been a little over 6,000,000 units. And only one year in six has shown a sharp dip below that average.

Late in 1959 the feeling was pretty general among automobile people that new-car retail sales in 1960 might jump to 7,000,000 units or more. One basis for this opinion was the belief that the steel strike had forced the postponement of hundreds of thousands of sales from 1959 into 1960.

But, as I indicated a few minutes ago, total new-car retail sales for this year will be much closer to 6,500,000 than to 7,000,000. This is additional evidence of increasing stability in the annual volume of sales in the automobile business. Cer-

tainly this kind of volume for this year has its bright side in terms of sales prospects for 1961. If we were enjoying a 7,000,000-car year or better now, in 1960, we would almost certainly be borrowing some sales from 1961.

Besides the fact that 1960 has been closer to an average year than we had expected, there are other good reasons for looking forward to a very good year for the automobile business in 1961. For one thing, the new-car market will be stimulated again this year by the introduction of four new compacts. And virtually every other 1961-model car in the industry will have new styling and new mechanical features to interest the customer.

But there is another factor just as important as the introduction of new cars and new features. Two out of every three sales of new cars are normally made to customers owning cars less than five years old—and at present there are 27,000,000 cars on the road in that age class. That is a very broad target for automobile salesmen to shoot at.

You have read and heard a good many reports to the effect that the used-car inventories are high and that they constitute a drag on new-car sales. Without attempting to speak for the industry as the whole, I would like to say that our present inventory of used cars in our dealers' hands is 123,000 as compared with 116,000 at this time a year ago. And since our dealers' sales of used cars so far this year have been 6% above the level of last year, our inventory is not out of line. This does not mean, however, that the used-car inventory situation is completely satisfactory from the point of view of car manufacturer.

Along with every other automobile company, we have found a tendency among customers to buy new compacts rather than standard-size used cars, and this has caused downward pressures on used-car prices. This was an inevitable result of the market revolution in the automobile business—a part of the adjustment that had to be made. For the customer, especially the motorist who wants to buy a second or third car at a very reasonable price, the present used-car situation is highly favorable.

These are some of my reasons for believing that 1961 will be a very good year for the industry.



Top: At the head table were (l. to r.): Mr. and Mrs. Harold Smith of Greensboro, H. F. "Red" Reagin of Atlanta, past president of IGOA; the Rev. Horace "Bones" McKinney of Winston-Salem, humorist; Harold Reas of Asheville, president of the North Carolina Automotive Wholesalers Association, and Bryan G. Davis of Raleigh, outgoing president of the IGO of North Carolina. Bottom: A portion of the audience and head table at the annual banquet. Additional persons at this head table were Henry S. Clark of Atlanta (extreme left), executive director of the Georgia Automotive Wholesalers Association, and Harold Grindle of Toledo (far right), executive secretary of the IGO of Ohio, who spoke at this first annual convention.

## Tarheel Garagemen Blast Free Unrelated Premiums

A RESOLUTION requesting manufacturers to stop giving unrelated items to the automotive business in package deals won adoption recently at the annual convention of the Independent Garage Owners of North Carolina at Greensboro.

The convention went on record as being opposed "to the use of prizes in connection with the use of package deals of merchandise purchased where the manufacturer gives such items as wrist watches, alarm clocks, fishing reels, etc., in order to persuade the independent shop owner to purchase a special deal or quantity of his merchandise for resale to the public."

The delegates also adopted a motion urging manufacturers of replacement parts in publishing their price lists to show only the list price and that the net price be shown as a discount percentage or that it be shown on a separate page, enabling the garagemen to use the manufacturers' recommended list prices "without revealing the cost of the merchandise to the customer."

The convention, which drew an

# \$18,000 my first 9 months SERVICING RADIATORS!



Harvey Jones Company, Reseda, Calif., says: "Radiator business was new to me until I opened my shop. In the first 9 months, I grossed \$18,000! This was due to my fine Inland equipment, plus

the instructions and sales aids received at your school!" There's a real radiator-servicing opportunity in **your area** right now. Every auto-truck-tractor owner is a prospect. Inland, world's largest radiator servicing equipment mfg., offers equipment, Pays-for-Itself purchase plan, and free training.

**INLAND MFG. CO., Dept. SA-10, Omaha 2, Nebr.**

**WRITE TODAY**  
for Free  
48-page  
book

INLAND MFG. CO., Dept. SA-10, 1108 Jackson St., Omaha 2, Nebr.

Please send new free book, "Blueprint for Profits."

FIRM \_\_\_\_\_

(PLEASE PRINT)

ADDRESS \_\_\_\_\_

CITY. \_\_\_\_\_

ZONE. \_\_\_\_\_

STATE. \_\_\_\_\_

BY. \_\_\_\_\_

TITLE. \_\_\_\_\_

If dealer, make of car sold. \_\_\_\_\_

Are you now operating a radiator dept.?  Yes  No

## Houser No. 765 "FITS-ALL" CHOKE STOVE REPAIR KIT

GIVES TWICE THE COVERAGE

with

1/2 THE SHELF SPACE  
2 THE INVESTMENT

of any

other kit on the market

SINGLE UNIT REPLACES BURNED-OUT TUBE IN ALL WARM-AIR CHOKE SYSTEMS! There's no stock problem . . . no large inventory . . . no wrong selection . . . with Houser's new No. 765 "Fits-All" Choke Stove Repair Kit. One number is all you need to make fast, profitable repairs on Chrysler, Ford, and General Motors cars. Give your customers smooth choke operation and big gas savings winter and summer the easy, extra-profit way — the Houser way!

**HOUSER** ENGINEERING & MFG., INC.  
Bluffton, Indiana

ORDER TODAY  
contact your  
Jobber or write

attendance of more than 200, also urged the enactment of a state law calling for annual safety inspections of motor vehicles.

The delegates authorized the employment of a full-time executive secretary at a starting salary of \$5,000.

The achievement trophy was won by Rowan County and was presented by Harold Rea of Asheville, president of the North Carolina Automotive Wholesalers Association, the donor.

On motion of Roy Mustin of Winston-Salem, the convention endorsed the displaying of a sign in members' shops with the wording, "We guarantee our work. We install only the parts we sell."

Retiring President Bryan G. Davis of Raleigh reported the association membership in the 24 units had climbed to 225 plus 50 allied members. Four units have completed journeyman training schools and three such schools are now operating and ten more are planned. Nearly 200 mechanics have already received training through these schools.

Thirty IGO highway signs have been erected and more than 50 others have been ordered and paid for, he said.

George Miller of Salisbury was elected president. New vice presidents are W. E. "Bill" Kaufman of Asheville, Harold Smith of Greensboro and Charles Barnes of Wilson. J. L. "Roy" Orr of Charlotte was reelected secretary-treasurer.

The second annual convention will be held next August at the Sir Walter Hotel in Raleigh.

### TBEA Meeting Expected To Draw Over 2,000

ATTENDANCE in excess of 2,000 for an all-time high is anticipated for the 13th annual convention and exhibit of the Truck Body and Equipment Association at the Sherman Hotel in Chicago Oct. 24-26.

The latest and best in materials and manufactured products that go into truck body construction and truck operation will be displayed by over 100 individual exhibitors occupying over 200 booths. The exhibitors, all members of TBEA, will be representative of all segments of the industry.

Attendees will include engineers, designers and purchasing officials of truck body manufacturers, as well as distributors, suppliers to the industry, truck manufacturers, fleet owners and operators and truck dealers from every state.

## the right spray gun can make a big difference

It is possible to apply a wide range of automotive finishes with a single spray gun...but it is not always economical. To get the most from a spray gun it must be right in many ways.

**—right for your coating...** There are specific guns for spraying almost every coating material known to man... modern finishes, undercoatings, solvents for engine cleaning, sound deadeners, water for car washing, and countless others.

**—right for your work load...** Some guns have heavy-duty features assuring long service life under hard continuous use...others are designed for light, intermittent use.

**—or right for special purposes...** Extension guns paint hard-to-get-into spots...pen-sized Wren air-brushes touch up scratches and imperfections without masking...flocking guns for lining trunks and glove compartments. In the past 50 years Binks has designed spray guns for just about every purpose. Today the Binks line includes 25 basic models and thousands of nozzle combinations.

**Ask your Automotive Jobber** for help in selecting the gun that is just right for your work, or write direct for Bulletin 60-J.

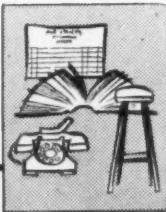
Ask about our  
spray painting school  
Open to all...NO TUITION...  
covers all phases

**Binks**  
EVERYTHING FOR  
SPRAY PAINTING

SPRAY GUNS      SPRAY BOOTHS      NATIONWIDE SERVICE

**Binks Manufacturing Company**  
3126-38 Carroll Ave., Chicago 12, Ill.

REPRESENTATIVES IN PRINCIPAL U.S. & CANADIAN CITIES • SEE YOUR CLASSIFIED DIRECTORY



## SOUTHERN JOBBERS and FACTORY MEN



President Jack Duffee (seated) and Sales Manager Frank Johnston study the records which show their firm's sales figures climbing this year over the 1959 performance.

# Why Our '60 Sales Are Running Higher

By FRANK A. JOHNSTON

Sales Manager, Birmingham Electric Battery Co., Birmingham, Ala.

THE slight downturn in sales volume experienced thus far this year by a great many automotive parts and equipment wholesalers in the South and Southwest fortunately has not appeared on the sales charts of Birmingham Electric Battery Co. Rather, we can report a substantial increase over the corresponding eight months of a year ago.

Several factors—most of them resulting from long-range planning and building—have been responsible, we believe, for this fortunate

progress.

First, it should be noted that we have not achieved fully the quotas established for this period. But we are firmly convinced that without the procedures we have followed, our sales volume would not have shown the firm increase in a year that perhaps has been somewhat disappointing for the industry as a whole.

One of the most effective sales stimulants at BEBCO is our sales quota system, which was established in 1954 and is executed through ex-

tensive use of IBM machines.

Under this system each of our salesmen is given a monthly sales quota for individual manufacturer's lines. Through his quota the salesman knows specifically what effort is expected of him and what items are seasonal.

At the start of the system in 1954 we determined quotas in this fashion: We took the previous three years' sales, averaged them, then figured in the increase we wanted. Now, with the procedure well established, we simply take the previous year's sales and pro-rate the increase we expect.

This year, for example, we projected a 10% increase for general company progress over 1959. We added 3.2% for price increases after discussing this with our suppliers, and an additional 3% for new lines. This came to 16.2%, the amount a salesman was expected to achieve over last year.

Individual quotas then were computed through the IBM machines for each of our 12 salesmen, by month and by manufacturer's line.

From sales figures at the end of each month we compile a salesman ranking list. The man who has achieved the highest percentage of his quota heads the list. This competition creates drive and enthusiasm among the salesmen, both to make the top rung and to stay off bottom.

Our salesmen are given monthly IBM sheets that show the cost of items and the sale price. They are paid a percentage of gross profit. Use of the IBM computers removes all doubt as to what was sold and for how much.

Another vital force in our sales efforts this year has been our educational program directed by Fred Wunderlich. Through training schools on small engines, carburetors, electrical and brake systems, this program has created much good-will and sales. We feel this department is just as much a part of our business as is stock on the shelf. Started in 1937, the educational department now maintains a backlog of students to be trained in various lines.



Sales meetings are given prime consideration at BEBCO. For us they constitute a very detailed program in which salesmen take an active role. We hold an average of one such meeting a week and always include our educational director in the proceedings.

We have found that screening our factory sales promotion programs and frequently modifying them for our specific program has produced larger sales volume in a shorter time.

Another vehicle that has helped our salesmen is a bulletin book issued to each. The salesman is required to keep the bulletin book with him at all times; it is his passport to sales meetings. In the book he files special directives and bulletins that cover promotional and premium programs.

In digesting factory programs we often list the important parts in 1-2-3 order, using short, simple sentences that get a message across fast and effectively.

Another very important angle in regard to sales: We cannot discount the value of training our salesmen technically as well as from sales and catalog standpoints. We don't necessarily train them how to repair particular items, but we do give them technical information on how units are constructed and how they perform. When a salesman sells today, he must be capable of discussing technical details with independent garagemen and service station owners. This phase of sales training has paid off.

Even the individual car owner is more technically inclined today, partly because of the raft of motor magazine articles and television commercials on the subject. The repairman must be a specialist in electronics, multiple carburetion, brake systems that have forces other than a foot on the pedal, plus many others.

Three years ago we instituted an annual sales meeting for jobbers,

distributors and service account salesmen throughout Alabama and Northwest Florida. At this meeting, held in Birmingham in December, factory representatives and our own salesmen present products for sale to the trade and present new programs that have been released by manufacturers for the coming year. This creates sales and good-will and educates our accounts on warranties, collections, technical aspects, etc.

In order to get the most out of the small-engine business in 1960, we detailed two special sales and technical representatives to this effort for June, July and August. They called on all contract accounts. This program was a 100% success in many ways. The small engine of today is no longer a stepchild. The features and the quality that the various manufacturers have developed into this equipment do not go unnoticed by this profession. Sales are made.

We have had in Birmingham for the past eight years a mechanics club. Meeting monthly, the members are presented one of our lines or a sales program with a service angle evolving around one of our lines. Most members, of course, are excellent customers.

On seasonal items, we are trying to work those items and train customers during the periods when they are not busy, or in the off season. Small-engine and lawn-mower schools are conducted during the winter months, for example.

As another incentive to our salesmen, BEBCO pays them a commission on labor for any item they pick up to be repaired in our shop. Diesel injector repair, for example, increased this business substantially this year.

Yet another factor in our sales volume is a new type of invoice that has cut shipping time in half.

These, then, are the principal reasons, we believe, that have enabled us to show a firm increase in sales

this year. Properly executed, we are convinced such a program as BEBCO's will go a long way in precluding extended sales lags.

#### Arvin Appoints Floridian

Lowell E. "Dick" Jewel of St. Petersburg, Fla., has been named field sales representative in his state for the automotive replacement parts division of Arvin Industries, Inc. Jewel will be in charge of the company's brand of muffler and exhaust system sales in the Tampa area, as well as car and truck heater sales. He has been associated with Arvin since 1957 as consumer products division sales manager in Florida.

Lempco automatic transmission parts have been added by Holland Auto Supply, Inc., Greenville, S. C., according to President Ned E. Holland.

Appointment of Thomas L. Wheeler (shown here) as Southeastern regional sales manager of Weaver Mfg. Co., a division of Dura Corp., has been announced by General Manager Kenneth W. Sward. Wheeler, who had been a district sales manager for Weaver since 1957, headquartered in Alexandria, Va., will make his headquarters in Atlanta, Ga. The newly-created region includes most of the ten Southeastern states.





Marshall L. Yantis, who founded his company 40 years ago and is considered one of the real "old timers" in the aftermarket, is shown here with some of the anniversary banners being used by The Automotive to celebrate its 40th birthday. He actively heads the firm as president and general manager.

### **Fort Smith Operation Celebrates 40 Years**

C ELEBRATION parties complete with favors and birthday cake have been held in connection with sales kick-off meetings marking 40 years of operation for The Automotive, Inc., with general offices in Fort Smith, Ark.

Marshall L. Yantis founded the company on Jan. 5, 1920, and still actively heads it as president and general manager. Jack Rodden is assistant general manager and W. M. Cumley, general sales manager.

Beginning with the parent firm in Fort Smith and maintaining a strictly wholesale policy, the company has grown to 46 stores operating in parts of Arkansas, Oklahoma and Texas.

To carry out the celebration theme, a sales program was developed for September and October with all stores participating. Colorful banners and pennants are used to attract customers, who in turn are presented with yardsticks and other tokens. To stimulate interest, a "Red Hat Club" was formed with membership restricted to individuals earning a specified number of bonus points during the selling program.

### **MarPro Names Shanahan For the Southeast**

DICK Shanahan has been appointed Southeastern divisional sales manager for Maremont Muffler Division and Accurate ReNu Clutch Division of MarPro, Inc., with headquarters in Atlanta.

Formerly district sales manager in the Florida territory, Shanahan joined MarPro in 1952 as district manager in the Memphis territory.

### **J. H. Williams Forms Vulcan Tool Division**

VULCAN Tool Co., an automotive division recently formed by J. H. Williams & Co. of Buffalo, N. Y., a division of United-Greenfield Corp., will occupy quarters entirely apart from the parent plant and will be staffed by its own management, sales and operating personnel.

John R. Dotts (shown here) has been appointed national sales promotion manager for F. & B. Mfg. Co., Chicago. General Sales Manager Richard Bosard announced. Dotts, who was formerly general sales manager for the Norlipp Co., was at one time national sales manager for Milesmaster, Inc., and prior to that district manager of Chrysler's McPar Division and an automotive jobber.



Joseph W. Greenen (top) has been named general manager of the World Bestos Division of The Firestone Tire & Rubber Co., New Castle, Ind., succeeding Richard A. Riley (bottom), who was named president of The Firestone Rubber and Latex Products Co. of Fall River, Mass. Greenen had been manager of replacement sales for World Bestos since 1956. Riley, formerly president and general manager of that division, has been associated with Firestone since 1939.

John J. Hope has been named general manager of the division. He will organize a franchised warehouse-dealer sales system for marketing the company's "Vulcan" line of automotive repair and service tools and related equipment, comprising approximately 4,000 items.

### **Christenson Retires From Clevite Corp.**

L. W. CHRISTENSON retired last month as vice president in charge of sales for Cleveland Graphite Bronze Division of Clevite Corp. He is succeeded by W. D. Cowgill, who was named general sales manager four months ago after eight years as the company's Detroit sales manager.

Christenson joined Cleveland Graphite on Jan. 2, 1924, when the company was only five years old. He became sales manager in 1943 and was elected vice president in 1948.



These long-time, well-known veterans of the aftermarket will speak the morning of Nov. 17 in a panel discussion on "Warehousing Versus Redistribution" which will be a highlight of the annual convention Nov. 16-17 of the South Carolina Automotive Wholesalers Association at the Wade Hampton Hotel in Columbia. (l. to r.): Thomas S. Perry of Atlanta, president of the Automotive Warehouse Distributors Association; James C. Parker of Sharp Automotive Supply Co., Chattanooga, Tenn.; B. M. Smith, general partner of National Parts Warehouse, Atlanta.

and W. H. "Rock" Rockafellow of Auto Parts Warehouse, Columbia. William C. "Bill" Herbert, editor of SAJ, will moderate the panel. L. A. "Les" Thayer, president of Automotive Service Industry Association and general sales manager of Belden Mfg. Co., will be a principal speaker. The Rev. Hubert A. "Baldy" White, Stockbridge, Ga., minister and humorist, will address the banquet. Ned Holland of Greenville is chairman of the program committee. J. B. Bagwell, Jr., of Charleston is president of SCAWA and E. A. Jenkins, Jr., of Columbia is vice president.

## Virginia's Birth Set for Oct. 24

**S**UCCESS in advance has assured when the Virginia Automotive Wholesalers Association is created at a meeting scheduled for 1:30 p.m. Oct. 24 at the Jefferson Hotel in Richmond.

Seventy-one membership applications had been received as of Sept. 26, it was announced by John F. Midyette, president of Standard Parts Corp., Richmond, Norfolk and Roanoke, who had been a keystone in whipping up interest in Virginia's having an association as so many states have been creating in the last several years.

"As this is more than 50% of our goal, I feel that we are now 'over the hump,'" said the veteran jobber.

This will not be a luncheon meeting. Rather, it is being designed to minimize the time to be taken in setting up the group, coming as a climax to a series of field sessions held throughout Virginia to enlist the interest of the prospective members.

More than 30 wholesalers contributed \$25 each toward expenses of promoting the association's birth and the following have constituted the steering committee: L. M. Hicks of Auto Accessories Corp., Alexandria; W. T. Grissom of Grissom Motor Parts Co., Marion; George Parker of Morse-Parker Motor Supply, Portsmouth; R. L. Brickey of Auto Parts Corp., Roanoke; C. F. Staples of Valley Distributors, Inc., Win-

chester, and C. Mason Phillips of Waynesboro Auto Parts, Inc., Waynesboro. Midyette, who is a past president of the Virginias-Carolinas Automotive Wholesalers Association, is the chairman.

The principal speaker will be Richard A. "Rick" Melvin of Automotive Service Industry Association. Also on the program will be Jesse F. Jones, Jr., executive secretary of the North Carolina Automotive Wholesalers Association.

The steering committee has drafted the constitution and bylaws to be proposed to the association. Its membership has been contacting prospective members, with indications that most jobbers of the commonwealth will be represented at the kickoff session.

### McEwen Cherry Co. Shifts Personnel

**P**AUL E. Dearing has been named sales representative for The McEwen Cherry Co., Inc., manufacturers' representatives of Nashville, Tenn., in its Georgia and South Carolina territory. He will headquartered in Atlanta.

Robert T. Cherry has been moved from the east Tennessee and western North Carolina territory to cover the Tennessee and Kentucky territory formerly covered by Dearing. Allen Williams has been moved to Richmond to cover the Virginia territory.

### McCord Elects Brinkman

Election of J. Clifford Brinkman as secretary-treasurer of McCord Corp., Detroit, Mich., has been announced by President D. S. Fields.



# Sales Rise for 55%

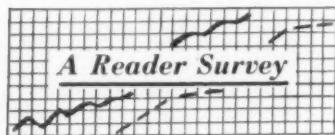
**S**ALES volume was higher for 55% of the wholesalers over the South and Southwest who answered a questionnaire comparing their business the first eight months of this year with the same period of 1959.

For 27% the sales were lower—usually just a few percentage points at best—and 18% reported the same amount.

Scattered among the reports were continuing complaints that the net profit wasn't managing to keep in step with higher gross income. Some wholesalers, too, said they couldn't understand why half or more of the respondents in recent surveys continued to list higher receipts when their own business was the same or lower.

Among the reports were these comments:

*From a well-known Southeastern operation—"Volume in our nine stores the first eight months was up*



1.8% due to some unprecedented tire chain sales, perhaps more equipment sales and some more push." But, it was added, "Net will be off for the year."

*From a long-time Missouri company—"Up 5%. Ford Motorcraft parts have helped considerably to get this increase. This line is assuming greater importance."*

*A West Virginian with a big volume—"5% ahead, in spite of what The Saturday Evening Post said about West Virginia."*

*A Birmingham, Ala., veteran—"Our sales are up over last year. Business is still there, but you can't be complacent and not work for it. It seems that the same old problems still are prevailing. Cost of doing business is increasing and the problems of redistribution are causing some lines to be less profitable.*

*"Some of the new small jobbers are sniping at prices, as they can pick up locally and deliver without stocking. I know one account with five employees; three of these are delivery boys."*

*Reports of increases of 28.7% and 35% came from two small-town Virginians (west of the central part of*

the state). A Kentuckian listed a downturn of 40%.

Closing of an Air Force base hurt local business generally at Lake Charles, La.

A central Floridian whose sales were about the same assailed "too many wholesalers" and said "too many jobbers are carrying the same lines."

An East Coast Floridian's business was down 4.5%. He reported "the usual summertime slow-down, but it appears to be just a bit more than expected." His collections were "getting tougher."

And a Baton Rouge, La., executive asserted, "It has been a struggle to keep ahead. Collections are the tightest they have been in years." His sales were 1.6% ahead.

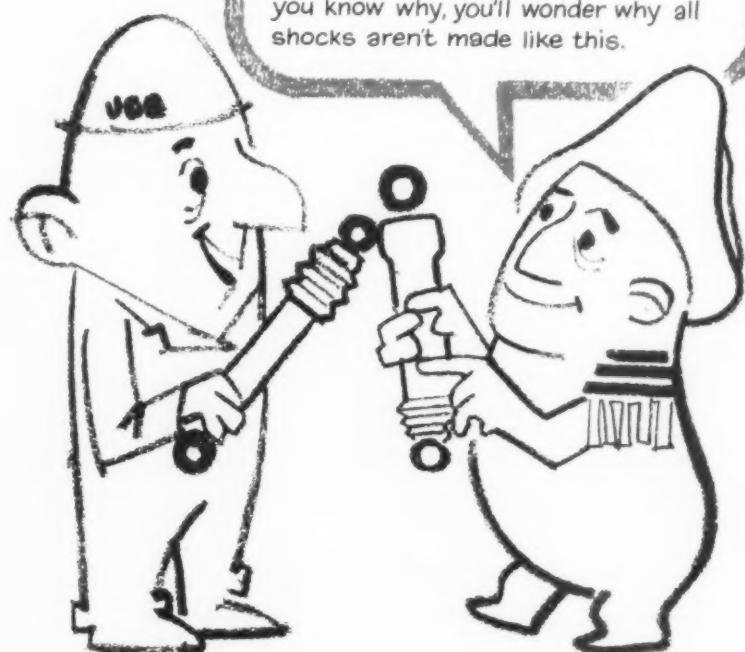
An eastern North Carolinian experienced a rise of 10% in sales but reported, as did a number of others, "Profit lower."

**Hey! Lookit the funny name on  
this shock absorber... 900W!**

**Must be a new company**

**It's not a new COMPANY. It's a new SHOCK ABSORBER...The new MOOG Shock Absorber AND YOU'RE HOLDING IT UPSIDE DOWN:**

The new Moog Shock is different from other shocks. **THIS** is the way you're supposed to install it...with the fluid at the **TOP**. Once you know why, you'll wonder why all shocks aren't made like this.

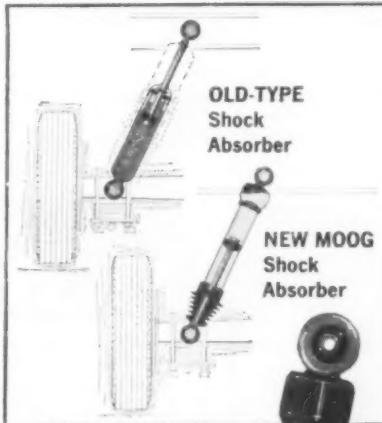




## NO SHOCK ABSORBER "FADE" WITH THIS MODERN, MORE SENSIBLE DESIGN

Shock absorbers are designed to work on fluid . . . not foam! But ordinary old-type shock absorbers have the fluid chamber mounted down on the axle where it gets the same bumpy ride as the wheel. This "egg-beater action" can quickly turn the fluid into foam . . . which slides through the valves too easily, defeating the purpose of the shock absorber. Riding comfort and steering control gradually "fade" away.

But the new MOOG Shock Absorbers have the fluid chamber mounted up on the frame. It gets the same smooth ride as the passengers . . . "Steady as she goes!" Reduces fluid foaming . . . ends shock absorber "fade." Passengers enjoy a safer, more comfortable ride.



**FREE! A GIFT FOR YOUR WIFE WITH NEW MOOG SHOCK ABSORBERS**

- Garages, service stations and dealers get a FREE place setting of elegant William Rogers plated silverware with each MOOG Shock Assortment #44. Just mail the coupon packed inside.
- With your 5th order, you also get a tarnish-proof chest FREE! The complete service makes a wonderful Anniversary present...and it won't take long to build up.
- Out of 2 cars driving into your shop needs new shocks...and each Assortment #44 contains 8 pairs of our fastest sellers!



Two great new shock absorbers . . .  
**MOOG COMMANDER** (standard)  
**MOOG SHOCK-BUOY** (heavy duty)  
 Contact your local MOOG jobber!

**MOOG MEANS MORE UNDER-CAR BUSINESS**

Directors of the Southwest Automotive Show, who met last month and unanimously approved dates of March 28-31, 1963, for the next show, are pictured here (l. to r.): seated, T. C. Watkins of Watkins Supply Co., Midland, Texas; James W. Soule of Milam Supply Co., Inc., Houston; Ralph E. Russell of Ralph E. Russell Co., Dallas; Yancy Robertson (president) of Robertson & King Motor Supply, Dallas; L. W. Barnett of Cogdell Auto Supply, Fort Worth; Sanford Johnson of Storm-Vulcan, Inc., Dallas; Bill Edwards of B. B. Burk Co., Houston; Cliff Bradshaw of Standard Motor Products, Tulsa, Okla.; standing, Bill M. Moncrief of Wagner Electric Corp., Dallas; Cy Waste of Standard Motor Supply, Tulsa; I. W. "Joe" Roycroft of Champion Spark Plug Co., Lubbock, Texas; H. L. Hutchinson of Dimmick Supply Co., Lake Charles, La.; Joe Crouch of Keller-Hyden, Inc., Pineville, La.; Hal Wray of Wray & White Auto Supply, Orange, Texas; Arlie Hibbitts of Straus-Frank Co., Houston, and A. L. "Artie" Barnett of Dallas, who is secretary and show manager. Also attending the meeting was H. M. Willey, Sr. of Hirsch-Frazier Co., Houston.

### VCAWA Meets Oct. 12-13

The fall convention of the Virginias-Carolinas Automotive Wholesalers Association will be held Oct. 12-13 at Hotel Robert E. Lee in Winston-Salem, N. C. As usual, topics chosen by the members will be aired at the sessions, which are closed to all but members. John R. Flowers of Hickory, N. C., is vice president and W. C. McCubbins of Danville, Va., is secretary-treasurer. S. J. "Syl" Williams of Norfolk, Va., had to resign the presidency because asthma has made it too difficult for him to preside over the meetings. A successor will be named at this fall convention.

### Dallas Firm Adds Store

Lemmonwood Automotive Supply opened recently at 5614 Lemmon Ave., Dallas, Texas, as part of an expansion program of Hargett Electric Co.

## Dallas Store Purchases Its Outstanding Stock

PURCHASE of all outstanding stock formerly owned by its founder and president, J. M. Egan, has been made by The Motor Mart of Dallas, Texas, from Egan's widow.

Bernard Egan, who has been with the corporation since 1928, is the new president. Dan J. Egan was elected vice president and Ralph E. Roach is secretary-treasurer. Roach has had 33 years of automotive experience, 17 of which have been with the firm. Dan Egan joined the organization in 1951.

An employee benefit program and retirement plan are being inaugurated by the president, as well as an expansion of the sales force and addition of several new lines.

## Radiator Specialty Names Wolf

Radiator Specialty Co. has named Norman C. Wolf to the newly-created post of Gunk Division sales manager. Formerly assistant sales manager with Magnus Chemical Co., Wolf will be primarily concerned with expanding sales of the Gunk line in the automotive aftermarket and the industrial field.



Inventory control is maintained nearby to the counter at Holland Auto Supply, Greenville, S. C., as shown here. The company was founded nearly ten years ago by Ned E. Holland, who earlier was with a Greenville jobber and prior to that was a sales representative for well-known aftermarket manufacturers.

## Dimmick Auto Supply Holds Annual Picnic

APPROXIMATELY 140 employees of A Dimmick Supply Co., Inc., Lake Charles, La., attended the company's annual picnic held last month at the Prien Lake home of I. C. Dimmick.

A 25-year award was presented to Gene McSpadden, while Ben Perry and J. D. Emon received a 15-year and a ten-year award, respectively. George Laviolette, Al Inher, Lee Trahan and Leroy Oliver each were recipients of five-year awards.

**NEW AUTOMATIC PARTS WASHER**

Bench Model

NO AIR CONNECTION NEEDED!

**Kleerflo**  
CLEANMASTER  
JET, JR. 25

Mobile Caster Model  
slightly higher

LESS THAN \$100 for precision parts cleaning.

**Priced so low you can put a unit on every bench!**  
**3 CLEANING ACTIONS! 2 CLEANING AREAS!**

Lower level: SOAK & AUTOMATIC JET TURBULENCE  
Upper level: CONTINUOUS filtered FLOW thru flexible HOSE FOR  
PRECISION CLEANING

Automatically jet cleans more parts, faster, easier, in less space at lower cost. Saves money, men, materials for pennies a day!  
ORDER TODAY! Full Satisfaction GUARANTEED!

9 automatic models . . . one for every need. Ask your jobber's salesman or write TODAY for JET-FLO Cleaning Manual and complete details on KLEER-FLO® JET, JR. . . and full line of KLEER-FLO Parts Washers and Safety Solvents.

WEST OF THE MISSISSIPPI PLEASE WRITE TO:  
EAST OF THE MISSISSIPPI PLEASE WRITE TO:

Practical MANUFACTURING CO.  
2840 4th Ave., S. MINNEAPOLIS 8, MINN.  
THE Kleer-Flo COMPANY  
250 W. 57th St., NEW YORK 19, N.Y.

## PREPARE CARBON - FRICTION - WEAR WITH **StabiZeo**

Combines four motor oil additives into one balanced concentrate of three top blends

No other lube oil on the market — at any price — can compare with this top-level 8% detergent and zinc inhibitor . . . 10% Viscosity — Index improver . . . 2% 100,000 P.S.I. anti-wear metal smoother . . . 80% narrow cut.

Insist on World's Best Lubricant  
Developed by German & U. S. Scientists in 1947  
Chemical Research Laboratories, Superior, Wis.

Write:  
**Southwest States Distributor**  
Route 6, Box 403 B  
Parkville, Mo.



## RAJAH HAND CRIMPING TOOL



NOTE—Simplicity of this Tool.  
It cuts and strips the cable. Also  
crimps Rajah Terminals to cable.

Order from your jobber or direct from us.  
Send for circular and prices.

The Rajah Company, 35 Verona Ave., Newark 4, N. J.



Ballard A. Yates (top), formerly executive vice president of McQuay-Norris Mfg. Co., St. Louis, has been elevated to the presidency, succeeding the late Carl R. Wippern. Former Vice President Roger S. Heidenheim (bottom) was elected executive vice president and in that capacity will remain the company's chief marketing executive in charge of activities in the replacement, original equipment and exports fields. Yates has been with the company for 33 years. He was elected manufacturing vice president in 1950 and executive vice president in 1959.

#### Knoxville Firm Upgrades Paint Department

**M**cNUTT & Burks, Inc., of Knoxville, Tenn., has specialized its automotive paint department, moving it to the front of the store and installing a new counter and shelving, President George W. Kinnie announced.

A complete line of automotive re-finish products, as well as all paint shop supplies, is featured. Jay Sharp, with 12 years experience in automotive painting, is in charge of the department.

#### Dallas Store Moves Branch

A branch store of Johnson Automotive, Inc., has moved from Cedar Springs Road to 5108 Lemmon Ave. in Dallas, Texas.

#### Van Norman Names Bragg For Southern Sales

**L**OYD F. Bragg has been named divisional sales manager in Alabama, western Florida, eastern Mississippi and part of central Tennessee, including Nashville, for the Van Norman Machine Co., a division of Van Norman Industries, Inc.

Prior to joining Van Norman, Bragg owned the Rochester Tank & Pump Co., Rochester, N. Y., and was a factory representative in Baltimore, Md., for the Olin Mathieson

Chemical Corp. Headquartered in Birmingham, Ala., he will be responsible for the sale of Van Norman's line of automotive equipment, it was announced.

#### Victoria, Texas, Store Opens

WW Auto Supply has opened at 1505 North Navarro, Victoria, Texas, where an ultra-modern machine shop will specialize in engine rebuilding, crankshaft grinding, cylinder boring, valve work, cylinder head and block re-surfacing.

IBMA APPROVED  
HEAVY DUTY  
**YOCAM** AND  
DIAMOND  
DEPENDABLE  
BATTERIES  
ASK YOUR DEALER OR JOBBER  
WE OUTSELL... BECAUSE  
WE OUT SERVE

**DIESEL  
MARINE  
INDUSTRIAL  
AIRCRAFT  
MOTORCYCLE  
COMMERCIAL  
AUTOMOTIVE**

**YOCAM BATTERIES, INC.**  
TAMPA - MIAMI - JACKSONVILLE  
PENSACOLA - ORLANDO, FLA.  
MOBILE, ALA. - COLUMBUS, GA.

# KRYLON SPRAY PRODUCTS

*Sell the brand in demand  
for top turnover... top profits!*

Stock Krylon, the modern pushbutton line, and watch it move! A wide variety of spray paints and other products your customers need and look for—smart package design and display loaded with eye-appeal for impulse sales. See for yourself how one Krylon sale leads to another—and another! Phone your jobber today!

**IF YOU PRIZE IT... KRYLON-IZE IT!**



KRYLON, INC.

NORRISTOWN, PA.



## Houstonian Organizes Own Muffler Company

M. W. BILLS, sales manager for the past five years for the muffler division of Laclede Metal Products, has left that company and organized his own firm, "Buck Bills Enterprises" of Houston, Texas.

The company will offer a line of automobile mufflers which it plans to merchandise nationally.

## Dimmick of Louisiana Opens Local Branch

DIMMICK Supply Co., Inc., of Lake Charles, La., has purchased Auto Electric Service Co. at 2619 So. Ryan St., Lake Charles, formerly owned by Jack Willis, according to H. L. Hutchison.

The buyer firm took possession Oct. 1 and will operate its new store as a branch.

## Grey-Rock Names Three For the South

THREE Southern representatives for the Grey-Rock Division of Raybestos-Manhattan, Inc., announced by Sales Manager John



Cecil Morris (second from right), owner of Battery and Electric Co., Greenville, S. C., accepts the first Pacco Pioneer Award to commemorate the fact that he was the first automotive jobber to purchase a Pacco carburetor tune-up kit. Making the presentation is Murray Ferber (right), sales manager of Precision Automotive Components Co., Manchester, Mo., while B. M. Smith (left), general partner of National Parts Warehouse of Atlanta, Ga., and William T. Ellis, Pacco Southeastern regional manager, observe the proceedings. The award was also presented to mark production of the ten-millionth such kit. The scene was the annual Jekyll Island (Ga.) meeting of the National Parts Warehouse, of which Morris is a limited partner.

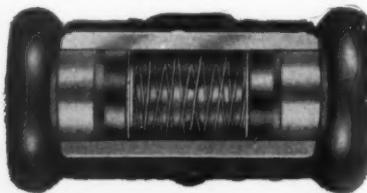
MacMurray are:

Lyle C. Brown for eastern Texas, northern Louisiana and southern Arkansas; Dudley P. Jones for Tennessee, southern Kentucky and

southwestern Virginia, and O. N. Nordlund for Virginia, except the southwestern portion. Jones and Nordlund replace H. R. "Matty" Mathews, who retired.



When you can service the old cylinders BETTER at a fraction of the cost to your customers — in approximately the same time it takes to replace them.



BETTER because you can service with TRU-TORQUE SAFETY CUPS AND DUAL ACTION EXPANDERS for positive seal and complete shoe release at all times.

MORE PROFITABLE because you get a larger percentage of the customer's dollar, while doing a better job at less than half the cost to your customer.

ASK your JOBBER about our handy Cabinet Assortment for servicing all popular cars at minimum cost.

**TRU-TORQUE**

Otto-Items, Inc.

1200 Reca Ave.

St. Louis 26, Mo.

## NEW *Bishman* POWER Tire Changer

Model 880-61

Trade in your old tire changer for a NEW BISHMAN with . . .

AIR POWER Double Bead Breakers  
ELECTRIC POWER Mount and Demount  
BIG CAPACITY, 12" thru 17½", chuck holds wheels & rims.  
SELF CONTAINED . . . EASILY PORTABLE.

One tire change a week pays for it. Ask your Jobber or write for descriptive Bulletin 880-61.

Bishman Tire Changers are sold only through Automotive Equipment Jobbers.

ROUTE 2, OSSEO, MINN.



**Bishman MFG. CO.**



**PERMATEX  
CHEMICAL  
PRODUCTS**

*...MADE FOR THE  
PROFESSIONAL!*



Joe Del Greco (top), former regional sales manager for the North-Central territory of Permalox Co., Inc., has been named to the newly-created position of central sales manager, with a marketing territory extending from Ohio to Nebraska and from the Canadian border to Tennessee. David J. Kaiser (bottom), former regional sales manager for the company's mountain states territory, has been appointed western sales manager, covering the states from Montana to Texas and from Arkansas to California. Del Greco maintains headquarters in Cincinnati and Kaiser in Denver, Colo.

Edmond D. Henley (top) has been elevated to chairman of the board of Birmingham Electric Battery Co., Birmingham, Ala., following the death of his father, E. Duvergne Henley, who was founder of the company. D. J. Duffee, Jr. (bottom), formerly vice president and secretary, has been elected president and treasurer. Another son of the founder, Thomas W. Henley, has been named vice president of the company.

## The TOOL CHESTS mechanics ask for...

# HUOT



•250 ROLLING  
CABINET—complete  
range of tool storage  
—18 x 26½ x 33—  
115 lbs.—red or blue.



•107 CHEST—  
26 x 12½ x 12½—  
—red or blue—  
lowest priced full  
size automotive  
chest on market—  
retails for \$28.50  
(slightly higher  
East and far West).



•100 DELUXE  
CHEST—seven  
cork-lined drawers  
—deep power tool  
drawer—21½ x 19  
x 26½—red or  
blue.

### THE FULL HUOT LINE ...

includes chests of every style. Drawers are all of extra heavy-duty construction to give long, jam-free service. Many have cork linings to protect your precision instruments. All cabinets have a smooth baked on enamel surface that takes rugged use with a minimum of marking and is easy to wipe clean.

Men who depend on their tools for a living, have to keep them right and ready . . . that's why so many of them ask for Huot tool chests. You'll like Huot, too!

*Write for information*

*Huot rhymes with "Do It!"*

**HUOT MANUFACTURING CO.**

587 N. Wheeler St. • St. Paul 4, Minn.

PULLS CUSTOMERS IN  
...KEEPS 'EM  
COMING  
BACK!

Pullman  
VACMOBILE

25 BUICK ST. BOSTON, MASS.

Write for full details on

**PULLMAN'S**

**BADGE-O-RAMA**

"silent-salesman" that reminds  
customers of their TBA needs!

### AP Parts Appoints Kansas

Walter S. McIntyre of Overland Park, Kan., has been appointed manager of the Kansas and Missouri sales territories of The AP Parts Corp., Sales Manager Ken Richcreek announced. McIntyre was most recently with United Motors Service Division of General Motors in Detroit as district manager. Earlier he was field work specialist in the Gates Rubber Co.'s Illinois and Missouri territories.

### Houstonian Gets New Building

Arilla's Auto Supply of Houston, Texas, has occupied a new building at 3420 Clinton Drive, according to Herbert G. Arilla, with double its former floor space in the parts department, brake and machine shops. Ample parking space is also provided, as well as space for expansions as needed.

## Florida Meeting May Draw 500; Four Jobbers to Serve on Panel

ATTENDANCE may run as high as 500 at the Nov. 17-19 annual meeting of the Florida Automotive Wholesalers Association, which will be held in Jacksonville at the George Washington Hotel.

A panel discussion on subjects selected by association members before convention time will highlight

the opening session on Friday, Nov. 18. Panelists include John Engels of Motor Units, Inc., Sarasota, Fla.; Clyde Hawkins of Patten Sales Co., and Edgar Rogers of United Warehouse, both of Jacksonville, and Hal Miller of Womwell Automotive Parts, Lexington, Ky. William C. "Bill" Herbert, editor of SOUTHERN

AUTOMOTIVE JOURNAL, will be the moderator.

Earlier that day George Snook, business management consultant, will speak on "How to Combat Inside Pilferage." The luncheon speaker will be Les Thayer, president of Automotive Service Industry Association and general sales manager of Belden Mfg. Co., whose subject will be "The Evils of Redistribution."

A manufacturers and Boosters meeting to which non-members will be invited will take place in the afternoon, following a closed business session for members of FAWA only.

Saturday morning's program will include five seminars: "Machine Shop Practices," moderated by Marvin Scarboro of Auto Machine & Parts Co., Orlando; "Auto Paint & Body Supplies," moderated by C. W. Arnold of The Arnold Co. of Jacksonville; "Electrical Carburetion," moderated by R. J. Blair of Automotive Electrical Associates, Inc., Miami; "Business management," moderated by George Snook, and Marshall Luce of Electrical Equipment Co., Miami, which will cover all phases of the business and will be open for questions, and the final one, covering "Insurance" and will be moderated by Don Dupuy of Patten Sales Co., Miami.

The luncheon speaker on Saturday will be C. A. Benoit, Jr., president of Permatex Co., on "Sales and Selling," and Joe Del Greco, president of Automotive Booster Club International. An afternoon manufacturer-jobber table conference will complete the business sessions, and will be followed by the B-36 Boosters' hospitality hour.

Entertainment will take the form of a chicken barbecue with strolling musicians at the Kloppel Farm on Thursday evening and a buffet supper Friday with Humorist Edmund Harding of Washington, N. C., as after-dinner speaker. A program has been arranged for the ladies who will be present.

Acme Air Appliance Corp. line and a brake drum grinding machine have been added by Walter S. White Auto Parts, Inc., Birmingham, Ala., President George P. Rogers announced.

\* \* \*

Walker Mfg. Co. mufflers and tailpipes have been added to the lines of Mid-Georgia Auto Parts Co., Inc., Griffin, Ga., according to Russell Allen, who is the president of this firm.

# Texas Leads in Super-Road Jobs

TEXAS leads all other states in the nation in number of miles of highways opened to traffic under the interstate highway program, with a total of 812, according to the Atlanta, Ga., field office of the U. S. Department of Commerce.

Two other Southern states stand high on the list. Oklahoma ranks 13th with 283.3 miles and North Carolina takes 15th place with 245.7 miles.

Virginia had 151.3 miles; Georgia, 132.5; Maryland, 114.9; West Vir-

ginia, 86; Florida, 83; Kentucky, 67.9; Alabama, 59.5; South Carolina, 53.6; Arkansas, 41.2; Mississippi, 29.1; Louisiana, 18.1; Tennessee, 7.2; the District of Columbia, 3.9, and Delaware, 3.5 miles.

Four years of operation of the program have resulted in the opening to traffic of 2,192.7 miles of roads in the 16-state Southern region and District of Columbia of a total of 13,912.5 miles designated for the area.

Of a total of some 40,600 miles of highways over the country designated for construction under the program, Alabama, Florida, Georgia, Mississippi, Tennessee and the Carolinas have the second longest stretch—6,302.2 miles, of which 610.6 miles have been opened to traffic, according to the Commerce Department.

Delaware, Maryland, Virginia, West Virginia, Kentucky and the District of Columbia have a designation of 2,585.7 miles, of which 427.5 miles have been opened.

End of the four-year period of

the program's operation found 7.9% of the total mileage designated in Arkansas completed, 2.7% in Louisiana, 35.6% in Oklahoma, 26.8% in Texas, 8.6% in Delaware, 32.5% in Maryland, 14.2% in Virginia, 21.8% in West Virginia, 9.7% in Kentucky, 11.9% in the District of Columbia, 6.8% in Alabama, 7.3% in Florida, 11.9% in Georgia, 4.3% in Mississippi, 31.8% in North Carolina, 7.9% in South Carolina and seven-tenths of one per cent in Tennessee. The last-named state's progress was the lowest recorded.

## Carolinian Hires Callicott

Guy Callicott, formerly with Thackston Chevrolet for 13 years, has been added to the sales force of Holland Auto Supply, Inc., Greenville, S. C., President Ned E. Holland announced.

Duco finish has been added to the lines of Standard Auto Parts, Bristol, Okla., George Back has announced.

David F. Westervelt of Brookfield, Wis., has been appointed Southwest regional manager of The AP Parts Corp., responsible for sales in Arkansas, Kansas, Louisiana, Missouri, Oklahoma and Texas. Formerly sales manager for American Hydraulics Co. of Milwaukee, Wis., Westervelt was from 1953 to 1958 Southeast and Midwest district manager for Blackhawk Mfg. Co. He will headquarter in Dallas, Texas.



## DUALMATIC "Selective Drive" HUBS



Easy to Install  
Simple to Operate  
One Year Guarantee  
40 Models Available

Dealers cost from \$37.50 to \$42.50  
in lots of 3 sets to an order.

Dealers average \$10.00 per set  
more profit.

Available from over 5000 jobbers and  
100 warehouses.



MATCHING REAR AUTOMATS  
Boost your sales with rear  
mats in same deep pile  
texture, colors and fitting.

**DUALMATIC**  
P.O. BOX 419  
LONGMONT, COLORADO

## ACE Carpet textured AUTOMATS



## REPLACEMENT FLOOR MATS in COLORS

These beautiful front floor mats are setting sales records, because they have a deep pile texture resembling the nubby yarn of thick, soft, beautiful carpet. They are actually tough, easily cleaned, resilient rubber. NO CUTTING! NO SLITTING! SURE FITTING! Molded to exact shapes of car floors.

**ACE RUBBER PRODUCTS, INC.**

100 Beech St.

Akron 8, Ohio

## Missouri Garagemen Gain Units for State Body

WITH the formation of St. Charles and completion of the St. Joseph unit (which has 32 members) Missouri garagemen have the necessary number of units to form a state group of the Independent Garage Owners of America, according to Ralph H. James, IGOA executive director.

The kick-off of a recent membership drive by IGO-St. Louis was attended by manufacturers, wholesalers and garagemen. The whole-

salers—about 135 in number—brought prospective IGO members as their guests and picked up the dinner tab for themselves and their guests.

IGOA's mid-year board meeting will be held Jan. 12-14 at the Alvin Plaza Hotel in Tulsa, Okla. A workshop for the state executive directors is scheduled for that time.

## Cooper Leaves Memphis To Head Texas Firm

J. STERLING Cooper has resigned as vice president and general sales manager of Parts, Inc., in Memphis, to become president of Gulf Automotive Supply, Inc., Houston, Texas, according to Thomas F. Plant, president of American Parts Co., a division of Gulf & Western Industries, Inc.

Cooper, a native of Union, Miss., was from 1938 to 1955 manager of McGregor's, Inc. of Memphis, a large wholesale distributor of appliances and automotive parts. He joined Parts, Inc., in 1955. Gulf Automotive Supply, with outlets throughout Texas, is one of five wholesale automotive parts distribution subsidiaries operated by American Parts Co.

**new FLASH CARDS SPEED ENGINE TESTING**  
send for FREE SAMPLE of Sun's new Passenger Car Specifications Service Cards and details of FREE METAL CASE INTRODUCTORY OFFER.

**Sun ELECTRIC CORPORATION**  
6331 Avondale Avenue, Chicago 31, Illinois



NOW! SAVE TIME and MONEY!  
DO A BETTER JOB!

with ASCAA'S  
**NEW SEAT COVER** ★  
**INSTALLATION**  
**GUIDE**

By VINCE CASTELL  
  
32 fully illustrated pages show you exactly how to install any seat cover fast and correctly. For all U.S. Stock Cars including 1961 Models. Pays \$200 per copy for itself on one job!

**ASCAA** 1711 Pratt Blvd., Chicago 26, Illinois

Gentlemen: Please send me \_\_\_\_\_ copies of the Seat Cover Installation Guide @ \$2.00. Enclosed you will find \$\_\_\_\_\_

NAME \_\_\_\_\_

COMPANY \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_

## Honeycutt Dies in Little Rock

John B. Honeycutt, 58, owner of Automotive Parts Co. in Sheridan, Ark., died recently in Little Rock.

The Automotive Division of The Aro Equipment Corp. of Bryan, O., has named Charles W. Glass and Associates managers for its Virginia, Tennessee, Carolinas, Georgia, Alabama and Mississippi territories. Glass, who heads the firm, was born in Decatur, Ga., in 1925. In 1949 he joined the Texas Co. and the next year won the "Mr. Texaco of 1950" sales achievement award. He entered the automotive equipment business in 1952 and has worked throughout the entire Southeast. In 1958 he was president of Automotive Booster Club B-35 of Richmond, Va.



## Mississippian Is Named NTDRA President

LESLIE L. Wilkinson of Jackson, Miss., was elected president of the National Tire Dealers and Retreaders Association at the 40th annual convention held recently in Kansas City, Mo.

Other officers are Lyle Remde of Omaha, Neb., first vice president; Vernon Sanders of San Francisco, Calif., second vice president; Fred Dredale of Monsey, N. Y., third vice president.

**MASTER BOND**  
**PLASTIC METAL**  
**BONDS ANY**  
**MATERIAL**

**Strong and Durable**

Economical and easy to use in home or shop. Bonds metals, wood, glass—any material—permanently.

Now in convenient tubes containing steel and catalyst



CATALYST

## Other WHERRY Products

- Master Recams
- Fast Oil Changer
- Muffler Seal
- Body Plastic

**WHERRY**  
**ENGINEERING CO.**

3617 Washington Avenue, Houston, Texas



Johns-Manville's new acoustical "Topliner," a snap-in, one-piece laminated fiber-glass acoustical automobile ceiling, is contoured to hold itself in place snugly under the metal top. Appearing on American Motors' cars for 1961, it is available in a range of colors to suit any interior. It is seamless, adding the beauty of an unbroken ceiling line and creating the feeling of spaciousness. J-M engineers termed "Topliner" the "most revolutionary development in automobile interiors since the first enclosed car was made." It's designed to muffle air-borne noises and vibration.

### Bowers Battery to Build South Carolina Facility

A \$1,250,000 plant will be built on a 20-acre site near Greer, S. C.,

by the Bowers Battery and Spark Plug Co. of Reading, Pa., it was announced late last month by officials of the firm.

The building will be ready for operation early next year and will employ about 150 persons, according to Alex J. MacRae, executive vice president and general manager of Bowers.

MacRae said that the company has increased its output more than 70% in the past four years and that the decision to build the Greer facility is in line with its expansion program. The company also has a plant in New Philadelphia, O., and sales offices and warehouses in other cities, including Charlotte, N. C., Macon, Ga., and Baltimore.

### Weber Dies in Mathews, N. C.

Arthur J. Weber, 54, district sales manager of Weaver Mfg. Division of Dura Corp. in parts of North and South Carolina, died of a heart attack at his home in Mathews, N. C., last month. He joined Weaver in 1945 as a salesman for the company's line of automotive equipment.

### Davis Follows Bodkin at McCord

The appointment of John T. Davis as advertising manager of McCord Corp. of Detroit, Mich., has been announced by President Dean S. Fields. Davis succeeds Edwin O. Bodkin, who retired after having been advertising manager for 37 years.



### INTRODUCING THE NEW DRYDEN-EAST HOTEL

39th St., East of Lexington Ave.  
NEW YORK

Salon-size rooms • Terraces • New appointments, newly decorated • New 21" color TV • FM radio • New controlled air conditioning • New extension phones in bathroom • New private cocktail bar • Choice East Side, midtown area • A new concept of service. Prompt, pleasant, unobtrusive.

Single \$15 to \$22 Suites to \$60  
Special rates by the month or lease

Robert Sarason, General Manager  
ORegon 9-3900

## Clover ABRASIVES DISCS, BELTS, ROLLS and SHEETS

Body work—or engine—whatever the grinding job, the abrasives must be good for best results. That is why so many leading manufacturers use Clover Coated Abrasives. That is why mechanics and craftsmen ask for Clover by name.

There is more than luck in . . .  
*Abrasives by Clover*

Regional warehouses assure quick deliveries



*Order from your distributor or write to:*

### Clover Mfg. Co.

Norwalk, Connecticut • Since 1903

Makers of the famous

CLOVER Valve-Grinding COMPOUND



### THE ORIGINAL SPRAY STARTING FLUID\*

\*Starts diesel and gasoline engines (from the smallest to the largest) down to 65° F. below zero • Starts in seconds • Excellent for humid weather starting too • Millions of cans sold • Publication advertising, free displays and literature help presell Spray Starting Fluid for you.

\*The inventors of spray starting fluid. Patent No. 2,945,995

Sell the can with the "balky donkey" trademark

SPRAY PRODUCTS  
CORPORATION

P.O. Box 1988 • Camden 1, N.J.

# MANUFACTURERS' AGENTS

## REPRESENTING OUR ADVERTISERS

### ALABAMA

**Alan Sales Co.**—Birmingham  
Acme Air Appliance Co., Inc.  
Felt Products Mfg. Co.  
**Herman J. Downey**—Birmingham  
Blackstone Mfg. Co.  
**W. P. Piperburg**—Birmingham  
Lee Filter Co.

### ARKANSAS

**Doyle Moore**—Little Rock  
F & B Manufacturing Co.

### DISTRICT OF COLUMBIA

**W. S. Hilliard**—Washington  
Gray Co.  
**Roland Rife**—Washington  
John E. Mitchell Co.

### FLORIDA

**R. L. Bridges & Associates**—Gainesville  
L & S Bearing Co.  
Vaco Products Co.  
**Hirsch-Brantley Co.**—Jacksonville  
Detroit Aluminum & Brass Corp.  
H. B. Egan Mfg. Co.  
Fram Corp.  
Imco Mfg. & Sales Co.  
Manley Valve Corp.  
**J. H. Jones**—Jacksonville  
Bishman Mfg. Co.  
Homestead Valve Mfg. Co.  
**J. V. Lewis**—Jacksonville  
Parker Brothers  
**J. E. Moon**—Jacksonville  
Gray Co.  
**I. C. Dimmick**—Largo  
Champion Pneumatic Machinery Co.  
**Maxim Hershey**—Miami  
Doan Mfg. Co.  
**J. L. Meadows**—Ocala  
Plasti-Kote, Inc.  
**H. M. Rogers**—Orange Park  
Huot Mfg. Co.

### GEORGIA

**Aaron & Bell**, Atlanta  
Everhot Products Co.  
P & D Mfg. Co.  
**Phil Boehm**—Atlanta  
Lisle Corp.  
Murray Co.  
**Clark-Richards Co.**—Atlanta  
Shurholt Products Co.  
**J. L. Daniell Co.**—Atlanta  
Pullman Vacuum Cleaner Corp.  
**Clarence Ethier**—Atlanta  
Homestead Valve Mfg. Co.  
**Gene Flke**—Atlanta  
Storm-Vulcan, Inc.  
**Ray Gandy**—Atlanta  
Ideal Corp.  
Jack-Pack Mfg. Co.  
**J. L. Mattie**—Atlanta  
Otto-Items, Inc.  
**Minnich Company**—Atlanta  
Practical Mfg. Co.  
**W. L. Morris**—Atlanta  
Spray Products Corp.  
**Roy & Hefner**—Atlanta  
International Metal Polish Co.  
**Milton Shamitz**—Atlanta  
Krylon, Inc.  
**Art Styron**—Atlanta  
F & B Manufacturing Co.  
**N. A. Williams**—Atlanta  
Gojer Co.  
**Edward Zinnell**—Atlanta  
Lee Filter Corp.  
**F. H. Williams Co.**—Covington  
Acme Air Appliance Co., Inc.  
Monkey Grip Sales Co.  
**Roy Lippincott**—Decatur  
Champion Pneumatic Machinery Co.  
**George H. Davison Co.**—Marietta  
The Crescent Co.  
**W. M. Carlton**—St. Simons Island  
D L Products, Inc.

### KANSAS

**H. E. Russell**—Jola  
The Crescent Co.  
Yankee Metal Products Corp.  
**Charles L. Sparks**—Mission  
Champion Pneumatic Machinery Co.

**E. T. Leahy**—Prairie Village  
Homestead Valve Mfg. Co.  
Storm-Vulcan, Inc.  
**William M. Byrne**—Wichita  
L & S Bearing Co.

### KENTUCKY

**J. Paul Saunders**—Bowling Green  
Bishman Mfg. Co.  
Lisle Corp.  
Monkey Grip Sales Co.  
Murray Co.  
**Phil S. Crutcher**—Louisville  
Gray Company  
**Lee B. Hughes**—Louisville  
Acme Air Appliance Corp.  
Everhot Products Co.  
Gojer, Inc.  
Storm-Vulcan, Inc.

### LOUISIANA

**Arch Evans**—Baton Rouge  
Coats Co.  
**L. J. Fortier**—New Orleans  
Western Tool & Stamping Co.

### MARYLAND

**William Chesney**—Baltimore  
Champion Parts Rebuilders, Inc.  
**Tom Clark**—Baltimore  
DL Products, Inc.  
**Merv Neal**—Baltimore  
F & B Mfg. Co.  
**Sam Shemer**—Baltimore  
Swiss Laboratory  
**Walter L. Breeding**—Towson  
Champion Pneumatic Machinery Co.

### MISSISSIPPI

**J. O. Park**—Jackson  
DL Products, Inc.  
**Guy M. Parker**—Jackson  
F & B Mfg. Co.  
Plasti-Kote, Inc.  
**Southern Sales Co.**—Jackson  
Champion Pneumatic Machinery Co.  
Huot Mfg. Co.  
**C. Guy Keen**—Meridian  
Ideal Corp.  
**Herman A. Shields**—Meridian  
Precision Automotive Components Co.

### MISSOURI

**E. F. Geary**—Independence  
Kester Solder Co.  
**R. S. Black**—Kansas City  
Lee Filter Corp.  
**C. N. Buettinger**—Kansas City  
Acme Air Appliance Co., Inc.  
Ideal Corporation  
L & S Bearing Co.  
Monkey Grip Sales Co.  
Precision Automotive Components Co.  
**Herb Calkins, Inc.**—Kansas City  
Blackstone Mfg. Co.  
Plasti-Kote, Inc.  
**R. O. Dickey & Co.**—Kansas City  
Krylon, Inc.  
**Doring & Eyer**—Kansas City  
Everhot Products Co.  
**Burt Eaton**—Kansas City  
Western Tool & Stamping Co.  
**E. H. Ebert**—Kansas City  
Practical Mfg. Co.  
**G. D. Heath Co.**—Kansas City  
John E. Mitchell Co.  
Spray Products  
**Charles H. Koslowsky**—Kansas City  
Bishman Mfg. Co.  
**Mosher-Newton-Williams, Inc.**—  
Kansas City  
DL Products, Inc.  
Fulton Sylphon Div.  
Parker Brothers

### H. J. Snyder

—  
Kansas City  
Jack-Pack Mfg. Co.  
**M. H. Swanam, Inc.**—Kansas City  
Gojer, Inc.  
**Paul K. Wilcox Co.**—Kansas City  
Murray Co.  
**Don Ayd**—St. Louis  
Bishman Mfg. Co.  
**Herman H. Buergler**—St. Louis  
Manley Valve Corp.  
**George M. Gilje**—St. Louis  
Champion Pneumatic Machinery Co.  
**Russ Nixon**—St. Louis  
Felt Prod. Co.  
Vaco Products Co.

**Walter G. Punt**—St. Louis  
Otto-Items, Inc.

### NORTH CAROLINA

**Sidney Butz**—Charlotte  
Ace Rubber Products, Inc.  
Fulton Sylphon Div.  
**John Cain**—Charlotte  
Spray Products Corp.  
**C. C. Case**—Charlotte  
The Crescent Co.  
**Bill Chancy**—Charlotte  
Bishman Mfg. Co.  
Lisle Corp.  
Murray Co.  
Plasti-Kote, Inc.  
**Jerry Huber**—Charlotte  
Gray Company  
**T. L. Kidd Co.**—Charlotte  
Storm-Vulcan, Inc.  
**Walter F. Pope**—Charlotte  
DL Products, Inc.  
**Ben T. Ward**—Charlotte  
Jack-Pack Mfg. Co.  
Otto-Items, Inc.  
Parker Brothers  
**P. L. Wimberly & Assoc.**—Durham  
Ideal Corp.  
Yankee Metal Products  
**J. S. Longdon**—Greensboro  
Champion Pneumatic Machinery Co.  
Huot Mfg. Co.  
**Ruark & Cox**—High Point  
Precision Automotive Components Co.  
**J. E. Besley**—Southern Pines  
Houser Engineering & Mfg. Co.

### OHIO

**A. W. Hoffman Sales Co.**—Cleveland  
DL Products, Inc.  
Parker Brothers  
**O. T. Hillshafer**—Newark  
Storm-Vulcan, Inc.

### OKLAHOMA

**Llew Keller Co.**—Oklahoma City  
Coats Co.  
**B. A. Kline**—Oklahoma City  
Bishman Mfg. Co.  
**Henry Lees & Associates**—Oklahoma City  
L & S Bearing Co.  
**J. F. Martin**—Tulsa  
Kester Solder Co.  
**Jim Permenter**—Tulsa  
Spray Products  
**L. T. Solomon**—Tulsa  
Champion Pneumatic Machinery Co.

### PENNSYLVANIA

**Ted Dinger**—Pittsburgh  
Murray Co.

### SOUTH CAROLINA

**Sam Gendil**—Columbia  
Felt Products Co.

### TENNESSEE

**Gardner & Meredith**—Chattanooga  
Kester Solder Co.  
**Earl Potter**—Memphis  
Champion Parts Rebuilders, Inc.  
**J. B. Skinner**—Memphis  
Homestead Valve Mfg. Co.  
**P. Stubblefield**—Memphis  
Champion Pneumatic Machinery Co.  
**Wayne Wilkins**—Memphis  
Jack-Pack Mfg. Co.  
**McEwen Cherry Co.**—Nashville  
Binks Mfg. Co.  
John E. Mitchell Co.  
Yankee Metal Prod. Corp.  
**General Sales Assoc.**—Nashville  
Fulton Sylphon Div.  
**J. R. Tate**—Nashville  
Precision Automotive Components Co.

### TEXAS

**Larry Albritton**—Conroe  
Kester Solder Co.  
**Battle & Davis Sales Co.**—Dallas  
H. B. Egan Mfg. Co.  
**Stanley D. Bowles Co.**—Dallas  
Huot Mfg. Co.  
**F. J. Brogan**—Dallas  
Felt Products Co.  
Monkey Grip Sales Company  
**B. B. Burk**—Dallas  
Everhot Products Co.  
P & D Mfg. Company  
**Caphton & McEvoy Co.**—Dallas  
Precision Automotive Components Co.  
**S. J. Cole**—Dallas  
Southern Friction Materials Co.

"I wouldn't use anything but

**go-jo**

CREME HAND CLEANER."

says Dick Schwartzmier,  
Mechanic and Bodyman,  
American Auto Repair Co.,  
Pittsburgh, Pa.

"I always try to take good care of my hands, and Go-Jo gives me plenty of help. It cuts grease and grime better than any hand soap I know. I like it because it removes all kinds of soils easily; you never have to scrub your hands raw to get them clean. No more 'mechanic's hands' for me!"

Go-Jo is the hard-working man's kind of cleaner; it gets rid of dirt fast! You get emollient protection against cracked hands, and GT-7 antiseptic to help prevent dermatitis.

PHONE YOUR JOBBER TODAY, **GOJER, INC.**  
OR WRITE: Dept. SAJ106, Box 991, Akron 9, Ohio

MANUFACTURERS OF **go-jo** PRODUCTS

AT LAST! Revolutionary, new type of grease seal that's EASY-TO-INSTALL . . .

Gives A Positive Leakproof Seal

## AD-A-SEAL OIL SEALS FOR REAR WHEELS

For Buick, Chevrolet, Pontiac,  
Chrysler Products, Ford Products,  
Valiant, Comet.



List Price \$2.40

MAJOR CAUSE OF GREASE LEAKS on cars with tapered bearings is that they must have .013 to .023 end play as stated in Auto. Service Digest, August, pg. 39. This end play lets axle get out of center and away from conventional sealing lips. AD-A-SEAL'S sealing quality is not affected when the axle is out of center. There is no spring to lose tension, no thin lips to wear out. READ THE TROUBLE, VALIANT IS HAVING, pg. 126, Southern Auto. Journal, August issue. This trouble will not affect AD-A-SEAL. AD-A-SEAL gives a perfect seal with loose bearings, worn or grooved shafts. Needs no special tools to install . . . costs 1/2 price of other seals . . . seals three times as good!

ORDER FROM YOUR JOBBER

or  
write us:

BETTER PART SPECIALTIES  
3001 SAN FERNANDO RD. • LOS ANGELES 42, CALIF.



Loosens Rusted Bolts  
nuts, screws, "frozen" parts!

## LIQUID WRENCH SUPER-PENETRANT

"The mechanic's friend . . . works in seconds"

YOUR JOBBER HAS IT!

RADIATOR SPECIALTY CO.  
CHARLOTTE, N. C.

J. S. Connell Co.—Dallas  
Detroit Aluminum & Brass Corp.  
Jack Pack Mfg. Co.  
Manley Valve Corp.  
H. M. Cree Co.—Dallas  
Fulton Sylphon Div.  
Plasti-Kote, Inc.  
Pullman Vacuum Cleaner Corp.  
Crockett-Jordan-Duncan Co.—Dallas  
Spray Prod. Corp.  
John D. Harvey Co.—Dallas  
Western Tool & Stamping Co.  
Hirsch-Frazier Co.—Dallas  
Binks Mfg. Co.  
Gunk Laboratories, Inc.  
Krylon, Inc.  
W. F. Janowski—Dallas  
Storm-Vulcan, Inc.  
Ralph Jeffress—Dallas  
Swiss Laboratories, Inc.  
Dean Johnson—Dallas  
Lisle Corporation  
Lynn & Hemphill—Dallas  
Clover Mfg. Co.  
McClintock Sales Corp.—Dallas  
Acme Air Appliance Co., Inc.

J. P. McCombs—Dallas  
Stabl-Flo  
Philip T. Miner—Dallas  
Homestead Valve Mfg. Co.  
J. J. O'Connell, Jr.—Dallas  
Otto-Items, Inc.  
W. Frank Russell Co.—Dallas  
Blackstone Mfg. Co.  
Murray Co.  
Shipp & Payne—Dallas  
Doan Mfg. Co.  
Practical Mfg. Co.  
Yankee Metal Products Corp.  
Vogel-Swiggard Associates—Dallas  
Bishman Mfg. Co.  
Champion Pneumatic Machinery Co.  
Bradley Wayne—Dallas  
Lee Filter Corp.  
Wilkinson-Rey Assoc.—Dallas  
Vaco Products Co.  
O. C. Zell—Dallas  
Storm-Vulcan, Inc.  
W. L. Lyon—El Paso  
Gojer, Inc.  
Automotive Sales Co.—Ft. Worth  
F & B Mfg. Co.

Rudy Copeland—Ft. Worth  
H. B. Egan Mfg. Co.  
Cash Dean Co.—Ft. Worth  
The Crescent Co.  
Keller-Hyden, Inc.—Ft. Worth  
DL Products, Inc.  
Lisle Corp.  
John E. Mitchell Co.  
John W. Lovelady—Ft. Worth  
Gojer, Inc.  
J. E. Seifert—Houston  
Homestead Valve Mfg. Co.  
J. B. Simpson—Houston  
Gray Company  
Sanders-Willis Co.—Waco  
Ideal Corp.

### VIRGINIA

T. S. Armistead—Richmond  
Homestead Valve Mfg. Co.  
James E. Duffee—Richmond  
Practical Mfg. Co.

### WEST VIRGINIA

George M. Scott—Charleston  
Bishman Mfg. Co.

# ADVERTISER'S INDEX

## A

AC Spark Plug Div. .... \*  
 Ace Rubber Co. .... \*  
 Ace Rubber Products, Inc. .... 171  
 Acme Air Appliance Corp. .... 92  
 Air Lift Company ..... \*  
 Airtex Products, Inc. .... \*  
 Albertson Co. .... 117, 118  
 Alemit Division ..... 90  
 Allen Electric & Equipment Co. .... \*  
 Allied Automotive Parts Co. .... 107  
 Alondra Sales, Inc. .... \*  
 Aluminum Ind., Inc. .... 30, 31  
 Amalie Div., L. Sonneborn Sons, Inc. .... \*  
 American Hammered Division ..... \*  
 American Motors Corp. .... \*  
 Ammco Tools, Inc. .... \*  
 Armstrong Hydraulics, Inc. .... \*  
 Arrow Armatures Co. .... \*  
 Arvin Industries, Inc. .... 17, 18, 19  
 Asphalt Institute ..... \*  
 Associates Investment Co. .... 85  
 Atlantic Steel Co. .... 134, 135, 136  
 Automobile Seat Cover Assn. of America ..... 172

## B

Baird Dynamic Corp. .... 143  
 Better Part Specialties .... 175  
 BCA Ball Bearings ..... \*  
 Bear Mfg. Company ..... \*  
 Binks Mfg. Company .... 159  
 Bishman Mfg. Co. .... 168  
 Blackhawk Hand Tools ..... \*  
 Blackstone Mfg. Co. .... 170  
 Blitz Electric Co. .... 175  
 Bower Roller Bearings ..... \*  
 Breeze Corporation, Inc. .... \*  
 Briggs Shock Absorber Div. .... 71

## C

Casite Division ..... 4  
 Champ-Items, Inc. .... \*  
 Champion Parts Rebuilders Inc. .... 96  
 Champion-Pneumatic Machinery Co. .... 152  
 Champion Spark Plug Co. .... \*  
 Chevrolet Motor Div. .... 72, 73  
 Chicago Pneumatic Tool Co. .... 89  
 Chicago Rawhide Mfg. Co. .... \*  
 Christie Electric Corp. .... \*  
 Citroen Cars Corp. .... 145  
 Clausen & Co., Inc. .... 156  
 Clevite Service, Inc. .... \*  
 Clover Mfg. Co. .... 173  
 Coats Company ..... 10  
 Cole-Hersee Company ..... \*  
 Commercial Credit Co. .... 69  
 Continental Piston Ring Co. .... \*  
 Crescent Co., Inc. .... 131

## D

D L Products, Inc. .... 103  
 DeKoven Mfg. Co. .... \*  
 Delco-Remy Division .... 20, 21  
 Detroit Aluminum & Brass Corp. .... 16  
 Dill Mfg. Co. .... \*  
 Ditzler Color Division .... 115  
 Doan Manufacturing Co. .... 126  
 Do-Ray Lamp Co. .... 24  
 Dow Chemical Co. .... 79  
 Dryden-East Hotel ..... 173

Dualmatic Products Co. .... 171  
 Du-Pont de Nemours & Co., Inc., E. I. Anti-Freeze Div. .... \*

Eaton Mfg. Co. .... \*  
 Echlin Mfg. Co. .... 95  
 Edgewater Automotive Div. .... 139, 141  
 Eggin Mfg. Co., H. B. .... 130  
 Els Automotive Corp. .... 6  
 Electric Autolite Co.  
 Batteries ..... \*  
 Institutional ..... \*  
 Parts & Service ..... \*  
 Prest-O-Lite Batteries .... 110, 111  
 Spark Plugs .... 128, 129  
 Wire and Cable ..... \*  
 Everhot Prod. Co. .... 106  
 Exide Automotive Division  
 The Electric Storage Battery Co. .... 137

## F

F & B Mfg. Co. .... 105  
 Federal-Mogul Service  
 BCA Ball Bearings ..... \*  
 Bower Roller Bearings ..... \*  
 Federal Mogul Engine  
 Bearings ..... 25  
 National Seal ..... 2  
 Felt Products Mfg. Co. .... 121  
 Fitzgerald Mfg. Co. .... \*  
 Ford Motor Co.  
 Motorcraft Division ..... \*  
 Fox Products Co. .... \*  
 Fram Corporation ..... 75  
 Fulton Sylphon Div. .... 78

## G

G. M. C. Public Relations Staff ..... \*  
 Gabriel Company ..... \*  
 Gates Rubber Co. .... \*  
 Gatke Corp. .... \*  
 General Electric  
 Lamp Division ..... 93  
 Go-Jer Co. .... 175  
 Gould-National Batteries, Inc. 153  
 Grand Automotive  
 Products Inc. .... \*  
 Gray Co., Inc., The .... 108  
 Griffin Lamp Co. .... \*  
 Grizzly Mfg. Div. .... \*  
 Grote Mfg. Co. .... \*  
 Guaranteed Parts Co., Inc. .... \*  
 Gunk Laboratories, Inc. .... 74

## H

Hasting Mfg. Co.  
 (Filter Division) ... Third Cover  
 (Piston Rings) ..... \*  
 Herbrand Tools ..... \*  
 Hirsch-Brantley Co. .... 28  
 Holley Carburetor Co. .... 125  
 Holmes Co., Ernest ..... \*  
 Homestead Valve Mfg. Co. .... 114  
 Houser Engineering Co. .... 158  
 Hunter Engineering Co. .... 124  
 Huot Mfg. Co. .... 169  
 Hygrade Prod. Div. .... \*

## I

Ideal Corporation ..... 148  
 Imco Mfg. & Sales Co. .... 104

Inland Mfg. Co. .... 158  
 International Metal Polish Co. .... 140

## J

Jack-Pack Mfg. Co. .... 143  
 Jaycee Chemical Corp. .... \*  
 Johns-Manville Corp. .... 82, 83

## K

Kem Manufacturing Co., Inc. .... \*  
 Kent Tool Mfg. Co. .... \*  
 Kester Solder Co. .... 76  
 Kimco Auto Prods. .... \*  
 Krylon, Inc. .... 167

## L

L & S Bearing Company ..... 91  
 Laher Spring & Tire Corp. .... \*  
 Lee Filter Corp. .... 123  
 Lisle Corp. .... 94  
 Lucas Electrical Services, Inc. .... \*

## M

Mac's Super Gloss Co., Inc. .... 70  
 Manley Valve Corp. .... 146  
 Marson Corp. .... \*  
 McQuay-Norris Mfg. Co. .... \*  
 Milesmaster, Inc. .... \*  
 Milwaukee Electric Tool Corp. 144  
 Minnesota Mining & Mfg. Co. .... 87  
 Mitchell Co., John E. .... 12  
 Monkey Grip Sales Co. .... 120  
 Monroe Auto Equipment Co. .... \*  
 Moog Industries, Inc. .... 164, 165  
 Mopar Parts and Accessories  
 Div., Chrysler Motors Corp. .... 127  
 Murray Company ..... 86  
 Muskegon Piston Ring Co. .... \*  
 Mustang Engines ..... 138

## N

National Brake Block Co. .... \*  
 National Seal Division ..... 2  
 New Britain Hand Tools ..... 97  
 Niehoff & Co., C. E. .... 29

## O

Oldsmobile Division ..... 151  
 Otto-Items, Inc. .... 168

## P

P & D Mfg. Co. .... 132  
 Parker Brothers ..... 170  
 Perfect Circle  
 Corp. .... Second Cover  
 Permatex Co., Inc. .... 168  
 Pick Mfg. Co. .... \*  
 Pit-Bar Mfg. Co. .... \*  
 Plasti-Kote, Inc. .... 122  
 Practical Mfg. Co. .... 166  
 Precision Automotive  
 Components Co. .... 150  
 Prest-O-Lite Batteries .... 110, 111  
 Proto Tool Co. .... 154  
 Pullman Vacuum  
 Cleaner Corp. .... 169  
 Purolator Products, Inc. .... \*

## R

Radiator Specialty Co. .... 74, 175  
 Rajah Company ..... 166  
 Ramsey Corp. .... Fourth Cover  
 Raybestos Division ..... \*  
 Rich Mfg. Corp. .... \*  
 Rinshed-Mason Co. .... 119  
 Robertshaw-Fulton  
 Controls Co. .... 78  
 Rochester Products Division ..... \*  
 Rogers Co., John ..... 14  
 Rubbermaid, Inc. .... \*

## S

Sealed Power Corp. .... \*  
 Shurhit Products, Inc. .... 142  
 Snap-On Tools Corp. .... 133  
 Sonneborn, L. Sons, Inc.  
 Amalie Div. .... \*  
 Southern Friction  
 Materials Co. .... 155  
 Southwest States Distributor .... 166  
 Spray Products Corp. .... 173  
 Stabi-Flo ..... 166  
 Standard Motor Products ..... 1  
 Stant Mfg. Co., Inc. .... \*  
 Storm-Vulcan, Inc. .... 116  
 Stringfellow & Co., Inc., W.T. .... \*  
 Studebaker-Packard Corp. .... 80, 81  
 Sturtevant Co., P. A. .... \*  
 Sun Electric Corp. .... 172  
 Swiss Laboratory, Inc. .... 68

## T

Texaco, Inc. .... 77  
 Thompson Prod., Inc.  
 (Service Sales Div.) ..... \*  
 Thor Power Tool Co. .... 84  
 Toledo Steel Prods. Co. .... 109  
 Torque Wrenches ..... \*  
 Trostel Packing Ltd., Albert .. 32  
 Tung-Sol Electric, Inc. .... \*  
 Tungsten Contact Mfg. .... \*  
 Co., Inc. .... \*

## U

United Motor Service ..... \*  
 United Parts Division  
 The Echlin Mfg. Co. .... 95

## V

Vaco Products Co. .... 143  
 Victor Mfg. & Gasket Co. .... \*

## W

Wagner Electric Corp. .... \*  
 Walker Marketing Corp. .... 22, 23  
 Warner-Patterson Co. .... \*  
 Weaver Mfg. Co. .... \*  
 Western Tool & Stamping  
 Co. .... 112, 113  
 Westinghouse Elec. Corp.  
 Lamp Div. .... 149  
 Wherry Engineering Co. .... 172  
 Willard Storage Battery Div. .... 26, 27  
 Wix Corp. .... \*  
 World Bestos Corp. .... 88

## Y

Yankee Metal Products ..... 8  
 Yocom Batteries, Inc. .... 167

# Show your customers how their engines 'look' inside!

Show them proof  
on the dipstick



keeps oil really clean

Next time you check a customer's oil, show him *more* than just the oil level. Point out—on the dipstick—that dark-colored oil is dirty oil. Dirt means abrasive. Abrasive means wear.

Install a Hastings Filter Cartridge. Then, on the next dipstick check, you can show him proof that Hastings has kept his oil *clean*.

Hastings filters keep oil clean from filter change to filter change.\* The reason is Densite—a completely different filtering material—and only Hastings has it (U.S. Pat. No. 2,797,811). Densite is composed of selected unkiered cotton fibres, packed to a uniform

density. Densite catches and holds dirt far beyond the capacity of any other filtering media.

Help protect your customers' engines from needless wear. Recommend Hastings Filters with every oil change. You'll have better satisfied customers, more repeat business—more profits, too!

HASTINGS MANUFACTURING COMPANY, HASTINGS, MICHIGAN  
Oil Filters, Piston Rings, Casite Additives, Spark Plugs

\*Proved by tests conducted under supervision of Pittsburgh Testing Laboratories, in accordance with U. S. Bureau of Standards procedures. U. S. Patent Numbers 2,797,811, 2,584,771



Offers a complete line of  
**OIL, AIR AND FUEL  
FILTER CARTRIDGES**



Hastings Fire-Power Spark Plugs . . . engineered for replacement service . . . give premium performance, at competitive prices, with better profit for you. Write for free catalog.

# HERE'S WHY RAMCO MEANS

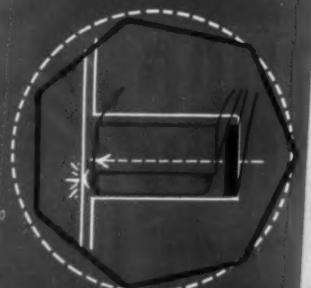
# SECOND GROOVE SUCCESS

join the legion of modern mechanics . . . the men who know,

put **RAMCO MODERN POWER SUCCESS**  
in all your ring jobs!

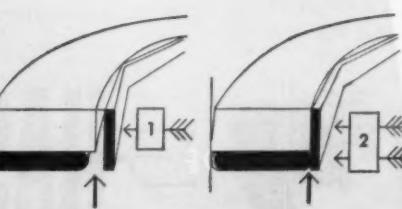
### “A COMBINATION COMPRESSION AND OIL RING”

Inner ring is essential for compression control, piston stabilization. It equalizes ring and rail pressure after seat in, provides high continued conformability, least wall pressure.



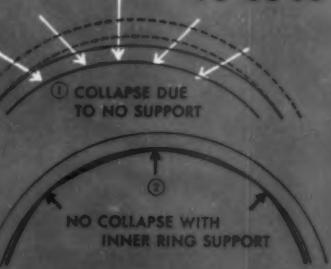
CHROME RAIL is an extra oil ring — another barrier against blow-by, oil pressure build up, because it provides side sealing action.

### “CLAIM OF LONG LIFE HOLDS UP”



Inner ring first centers its pressure against quick-seating cast-iron (1). After seat in, inner ring also contacts chrome rail (2), distributes pressure evenly over both for longer life.

### “VERY NECESSARY TO US”



(1) Ring collapse from oil pressure (hydro-dynamic) can occur at any point around the ring. Result: excess oil is allowed to go upward, finding its way to the combustion chamber.

(2) Ramco inner ring design prevents collapse by maintaining uniform outward pressure — not only at gap ends, but all around inside circumference. Result: continued compression contact and correct oil metering.

Ramsey Corporation, 3693 Forest Park Blvd., St. Louis 8, Missouri.  
A subsidiary of Thompson Ramo Wooldridge Inc.

